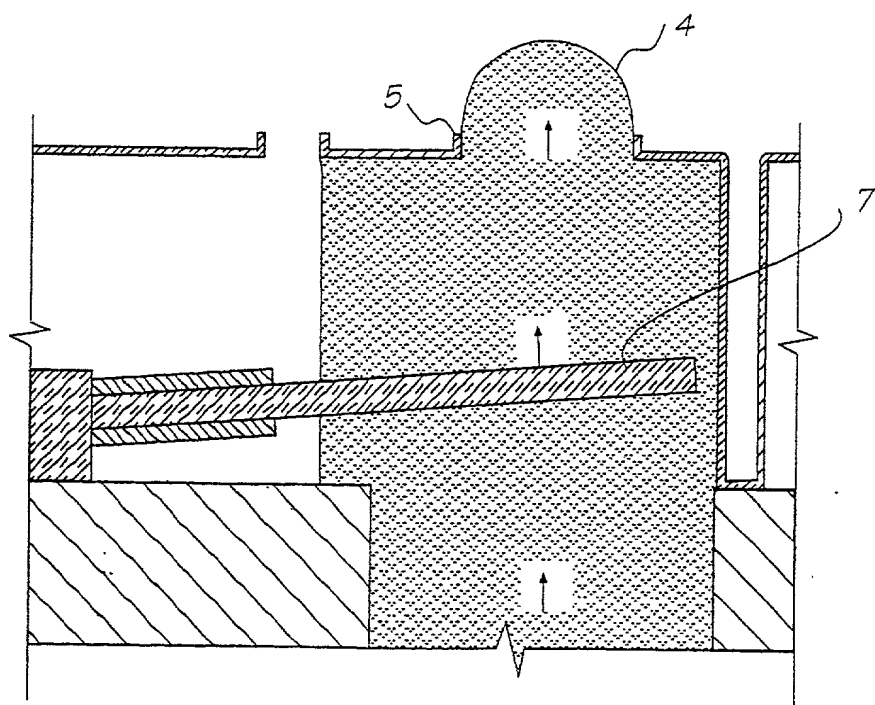
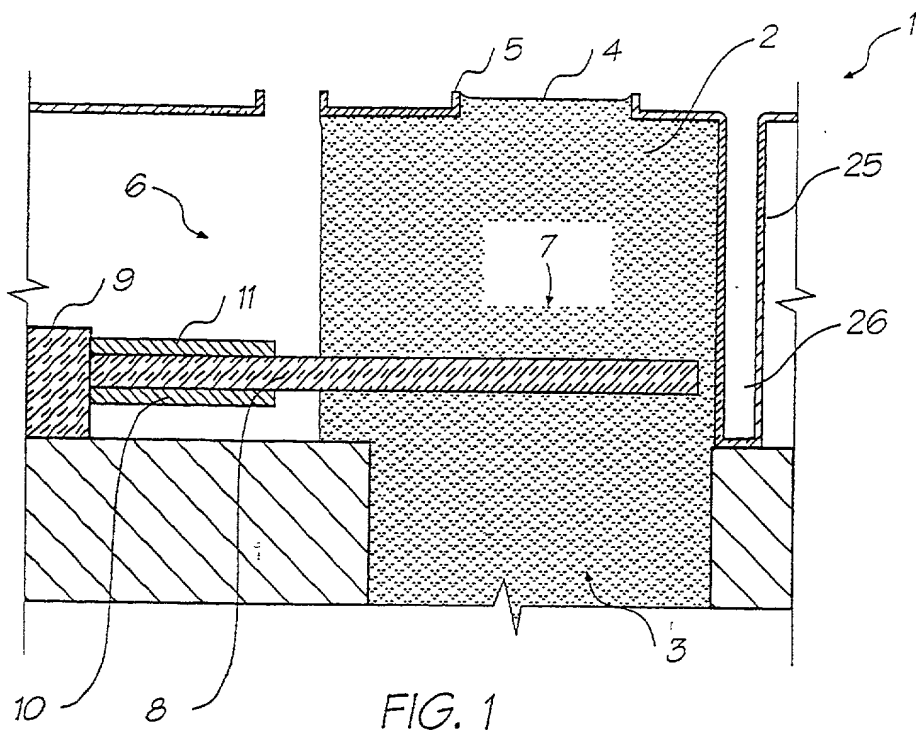


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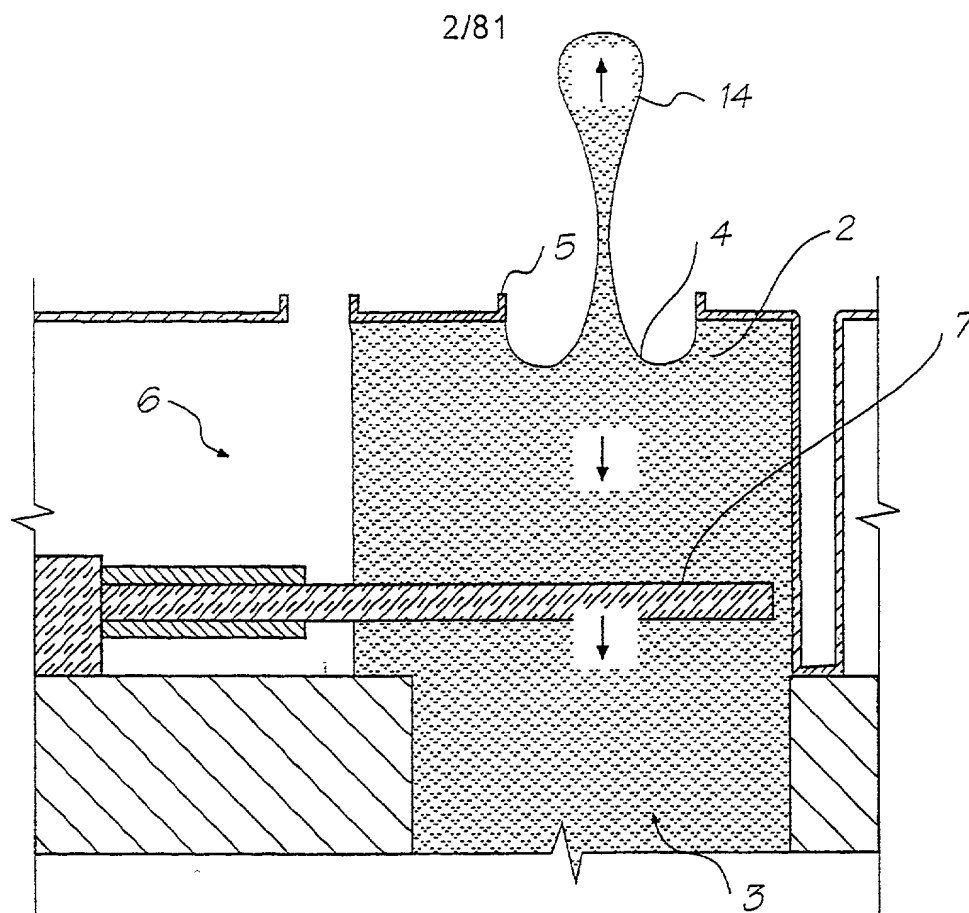


FIG. 3

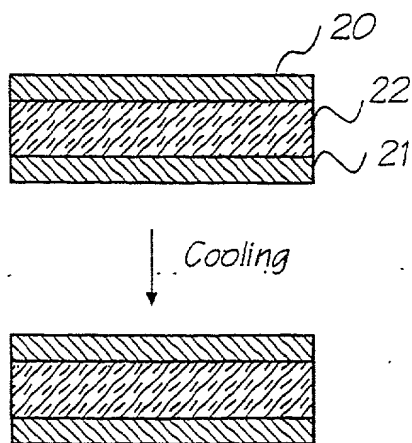


FIG. 4

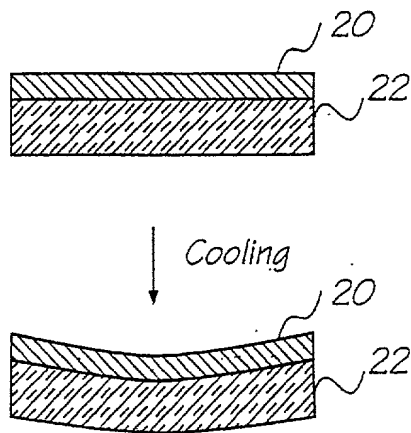


FIG. 5

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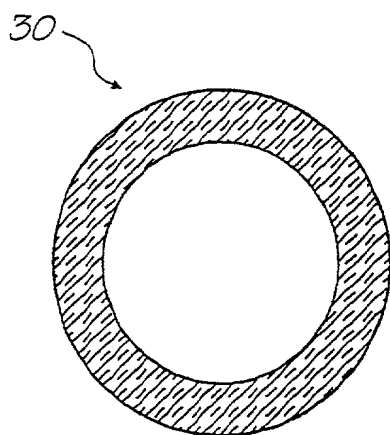


FIG. 6

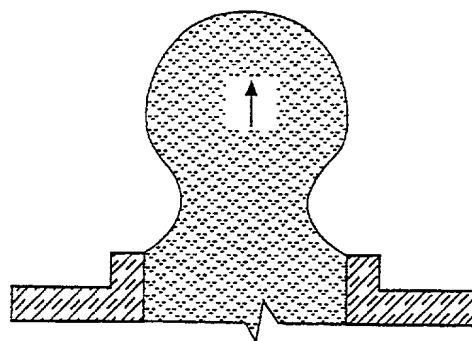


FIG. 7

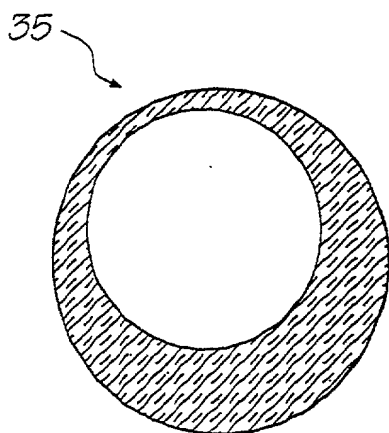


FIG. 8

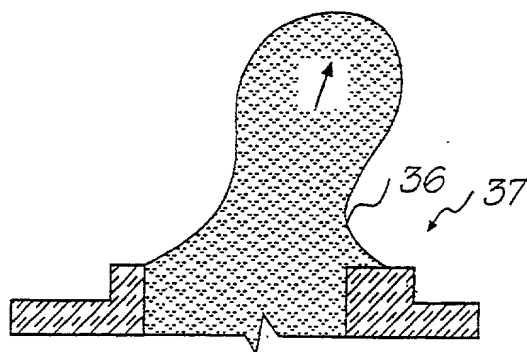


FIG. 9

FIG. 6

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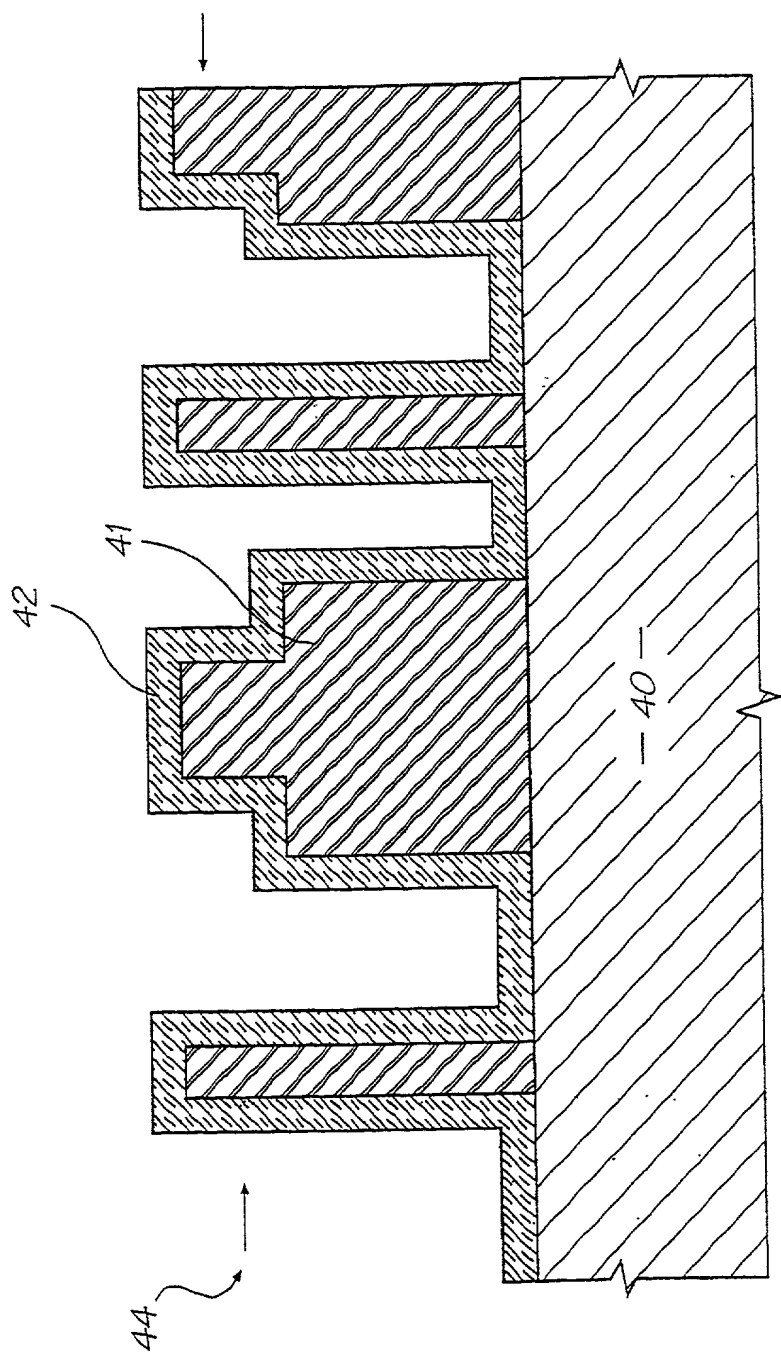


FIG. 10

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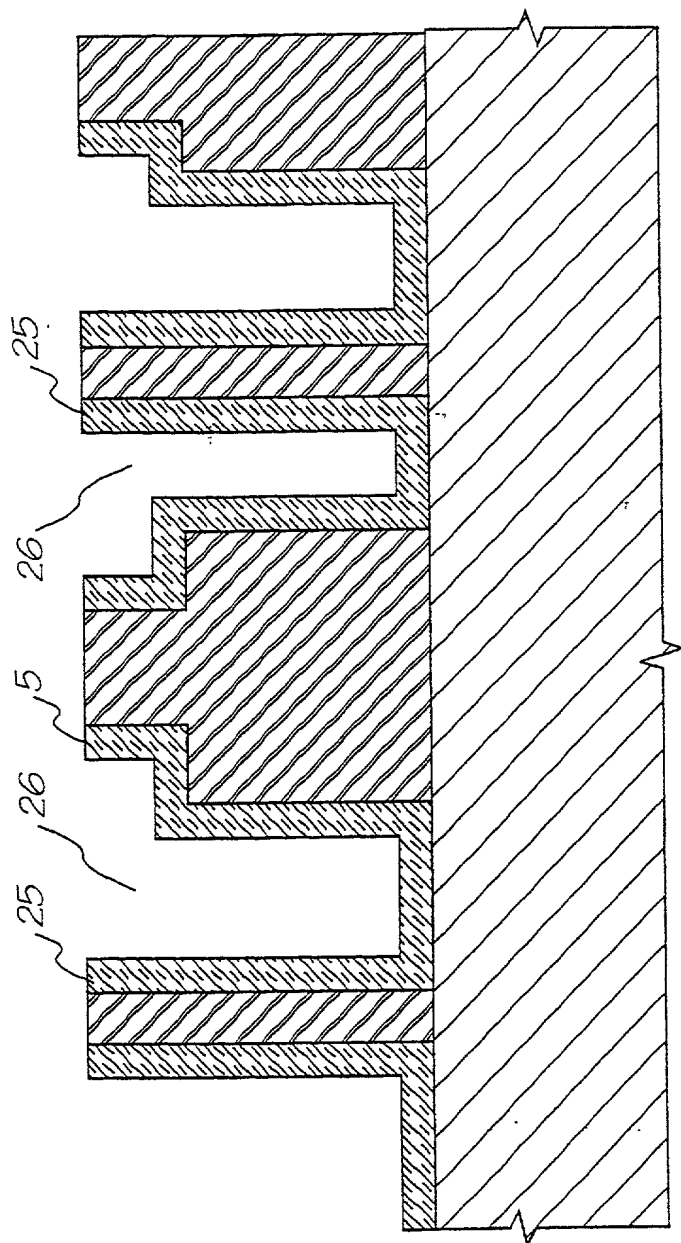


FIG. 11

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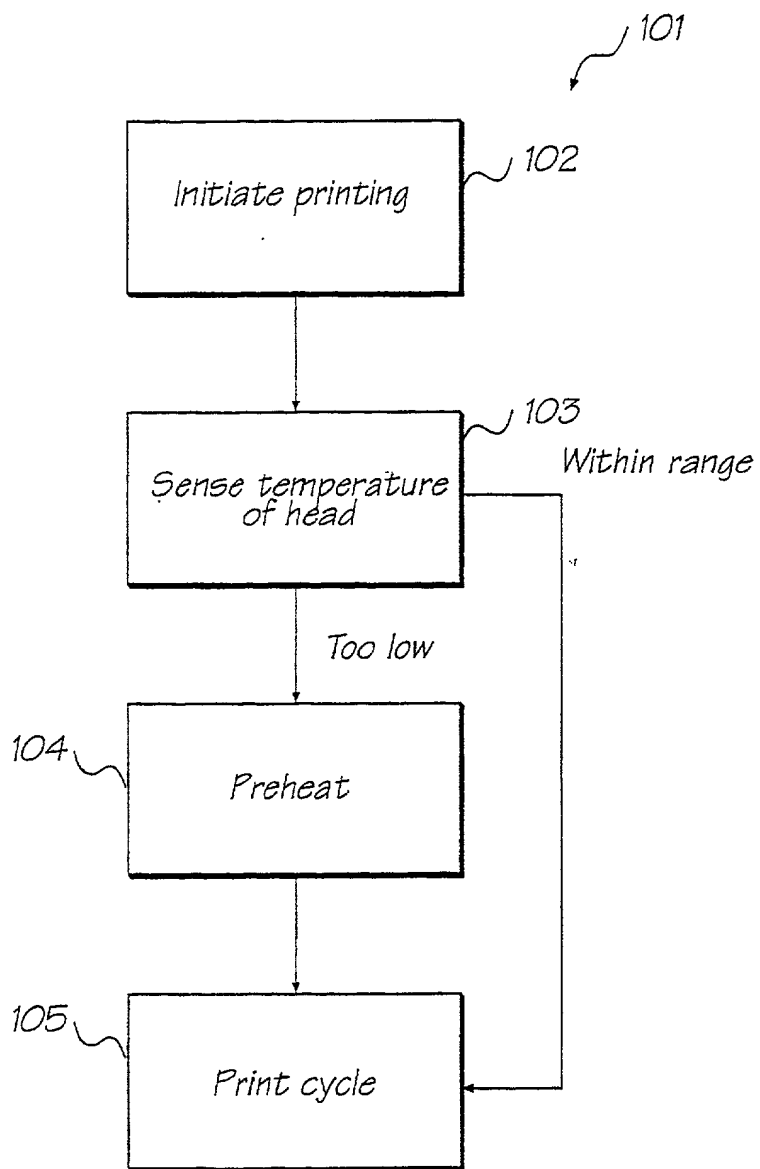


FIG. 12

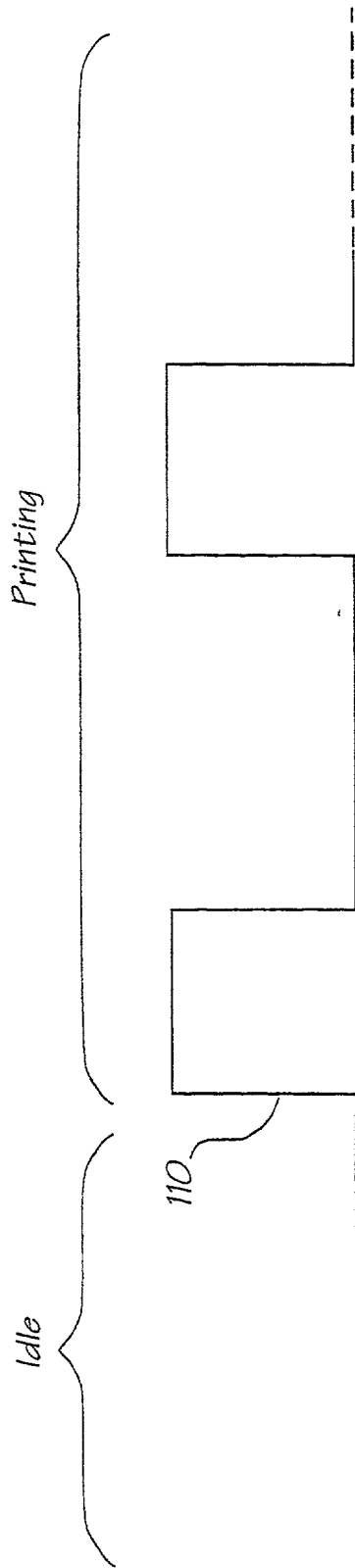


FIG. 13

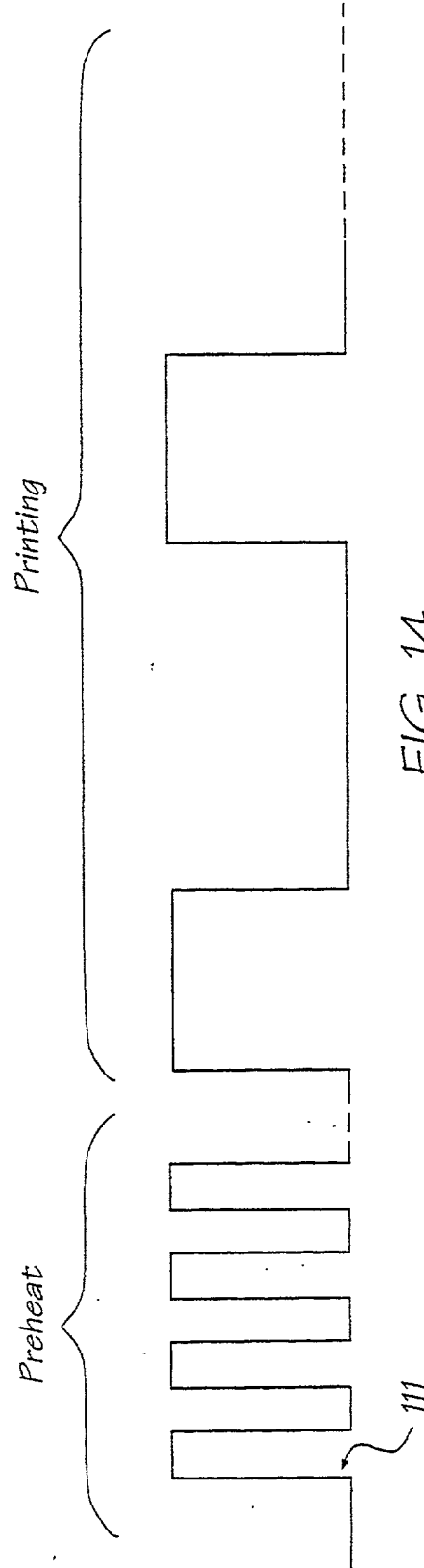


FIG. 14

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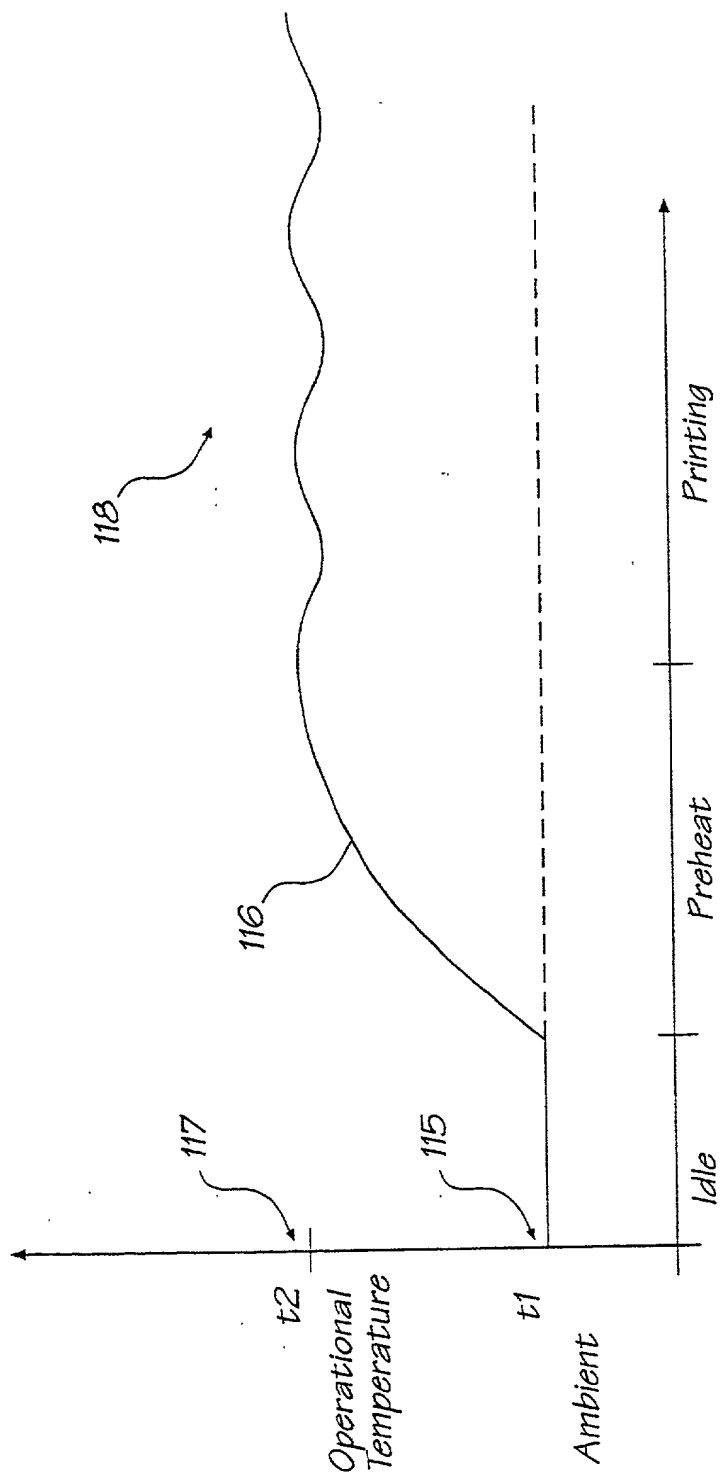


FIG. 15

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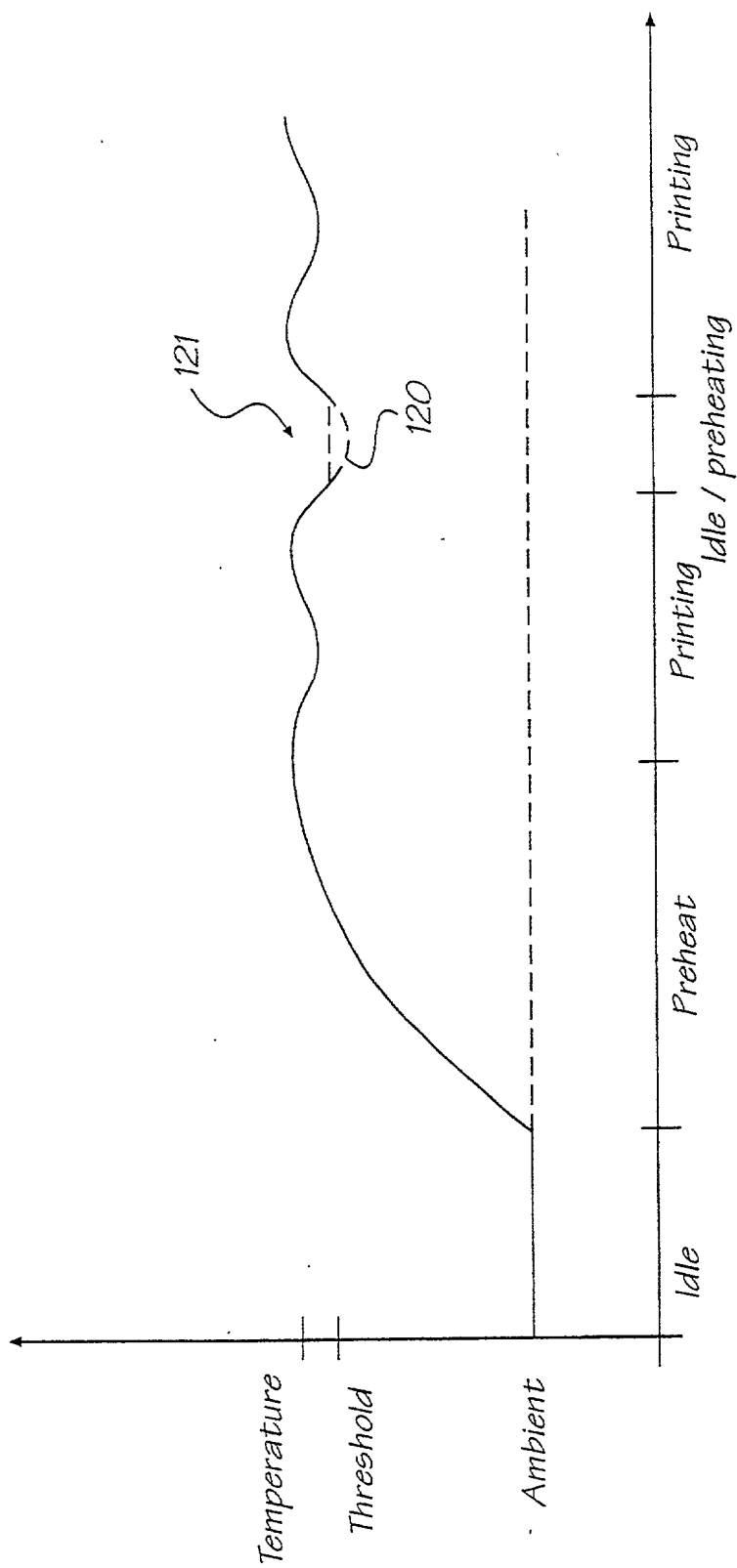


FIG. 16

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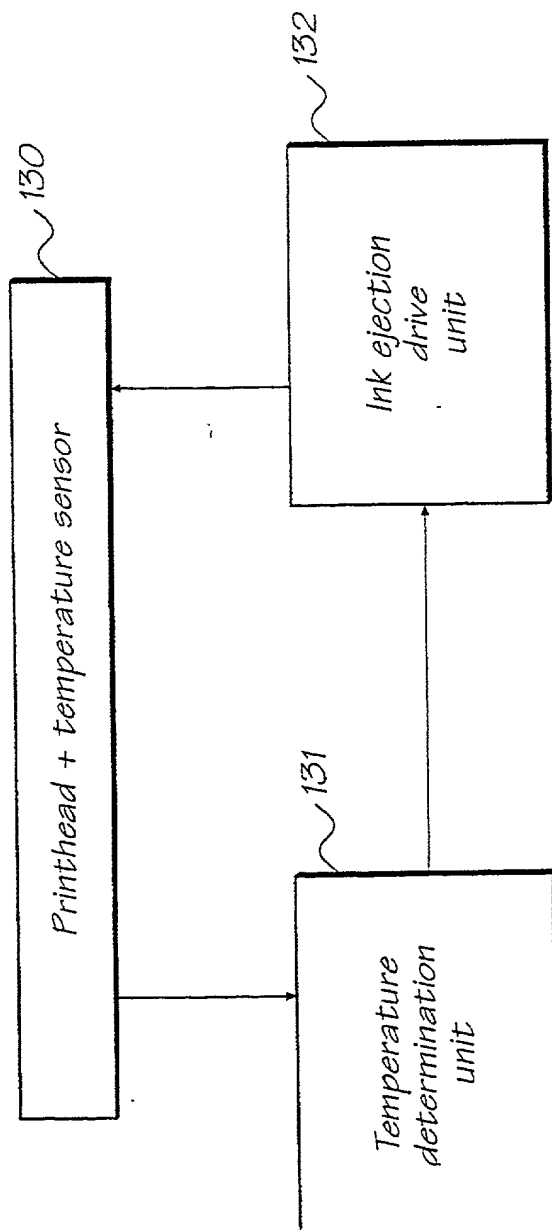


FIG. 17

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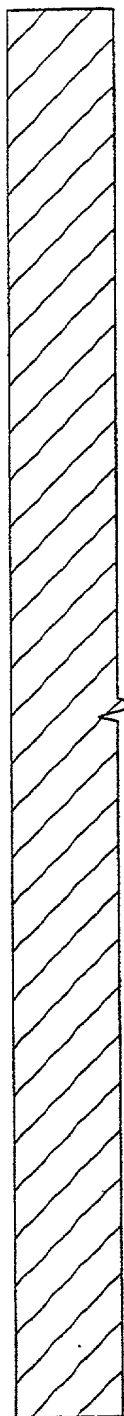
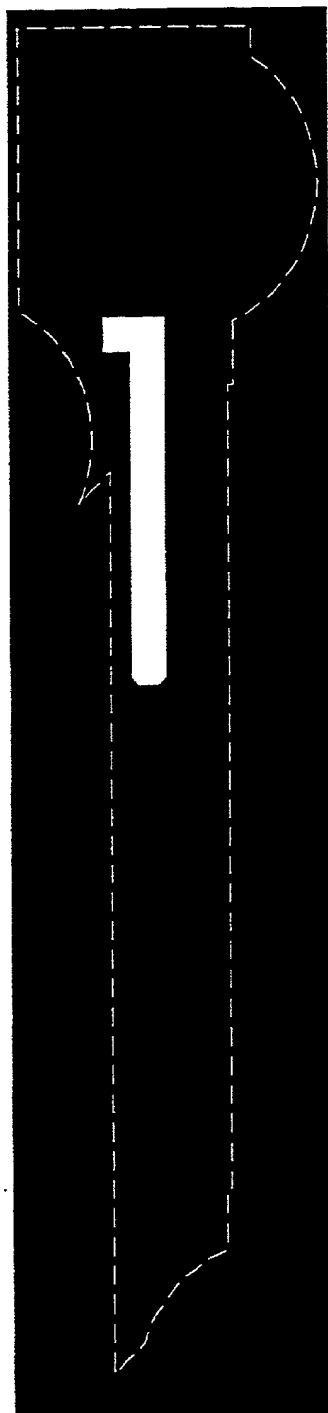


FIG. 18



N-Well mask

FIG. 19

210



Implant N-Well

FIG. 20

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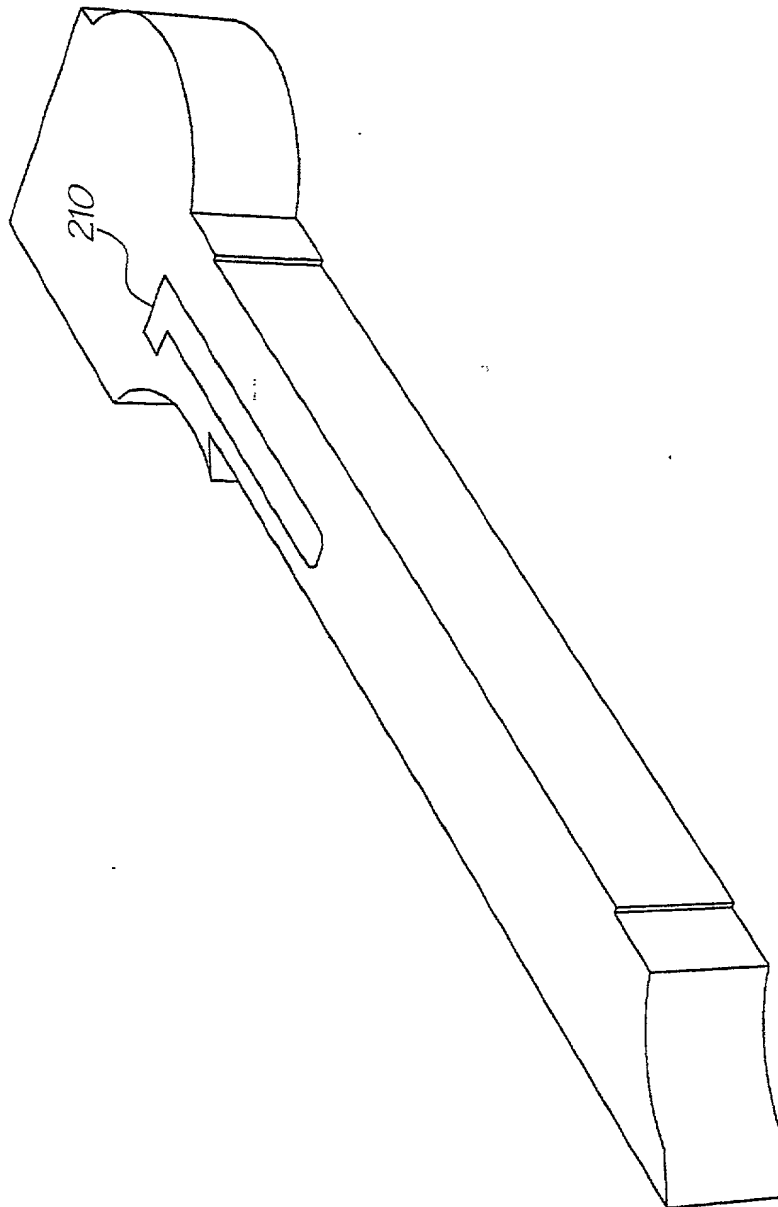
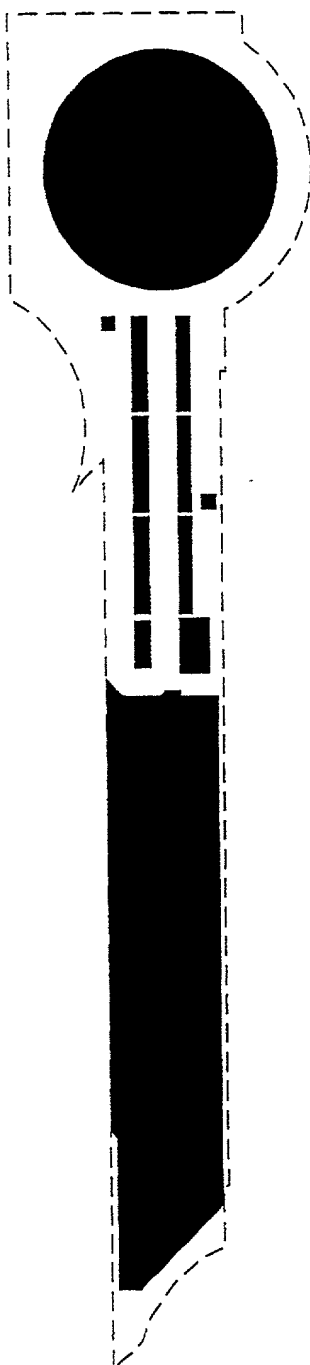


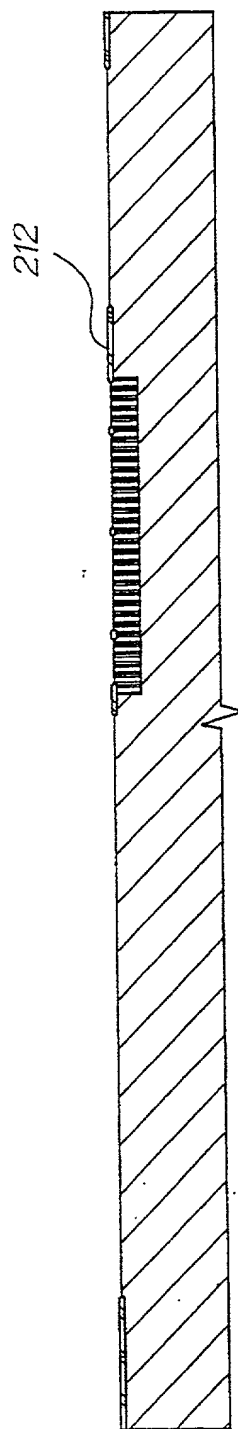
FIG. 21

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Active mask

FIG. 22



Grow field oxide

FIG. 23

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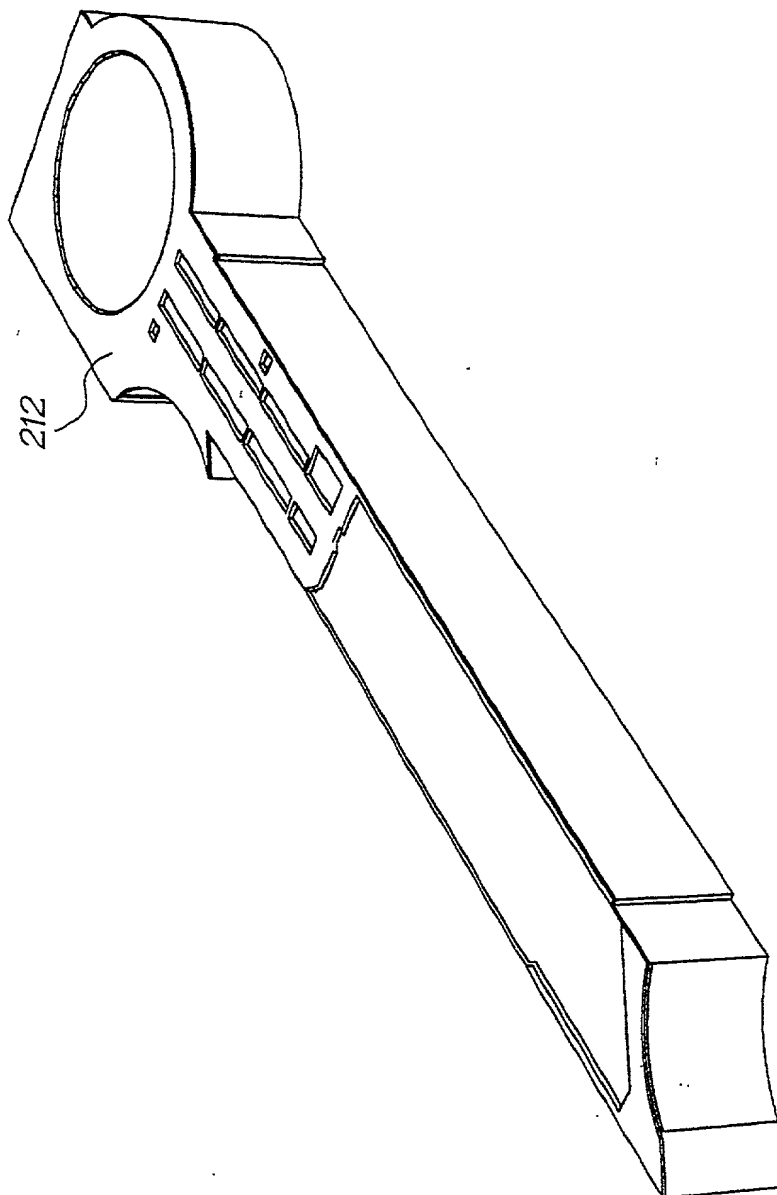
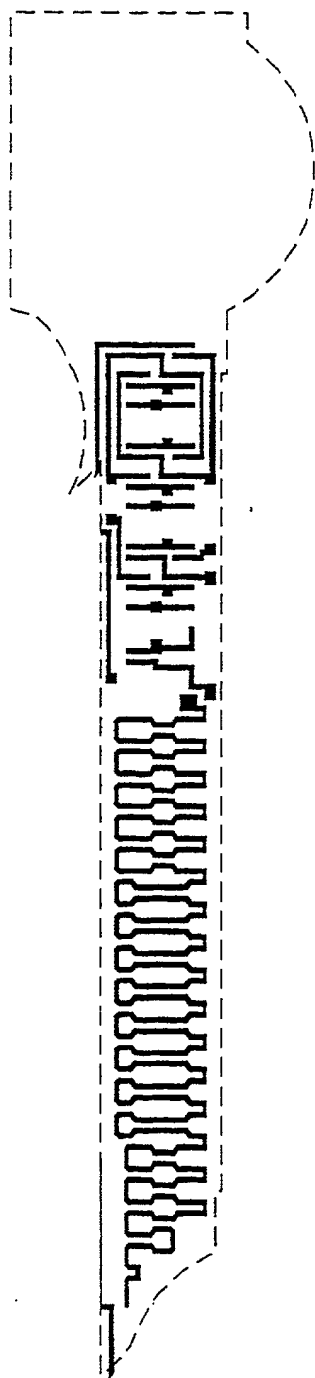


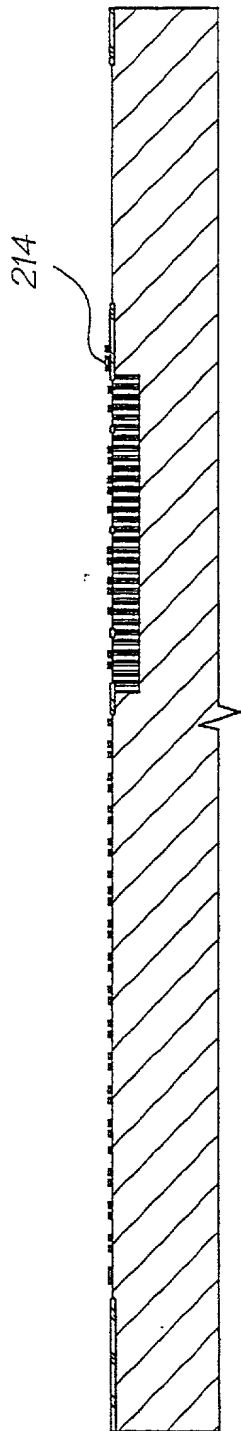
FIG. 24

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Poly mask

FIG. 25



Deposit poly

FIG. 26

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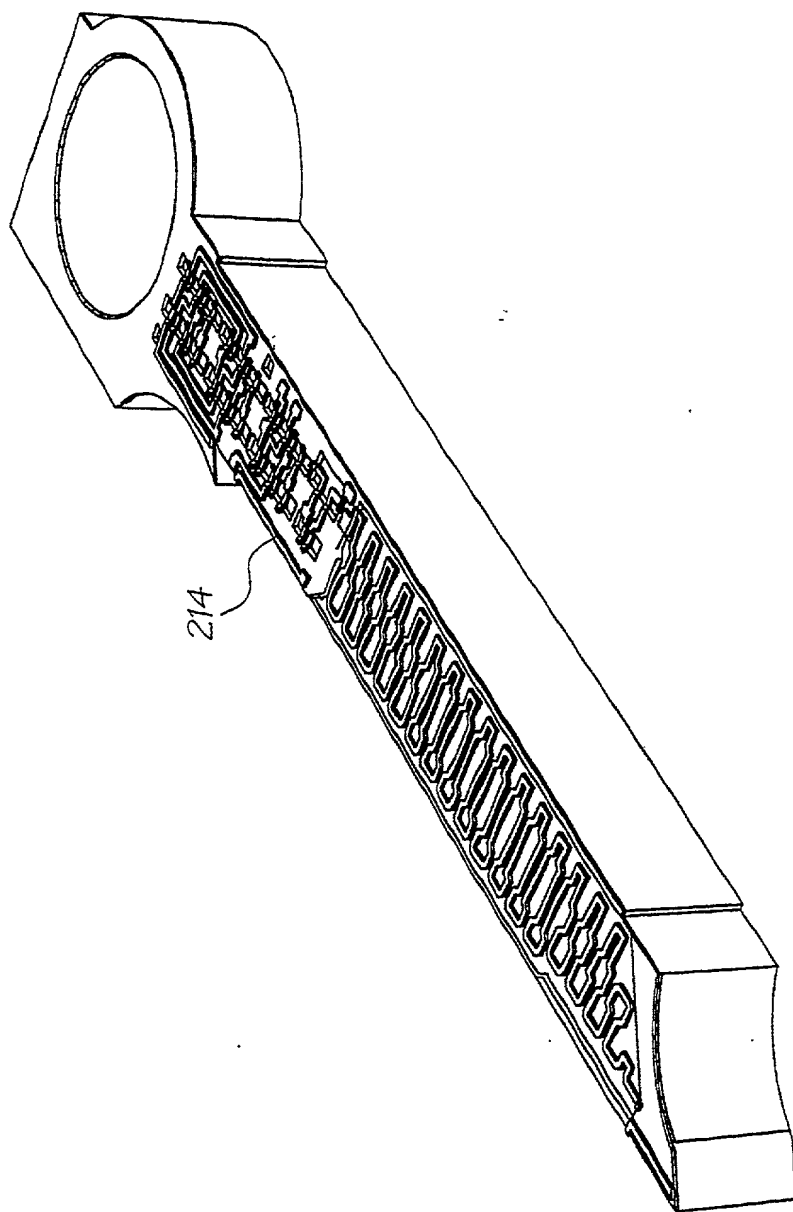
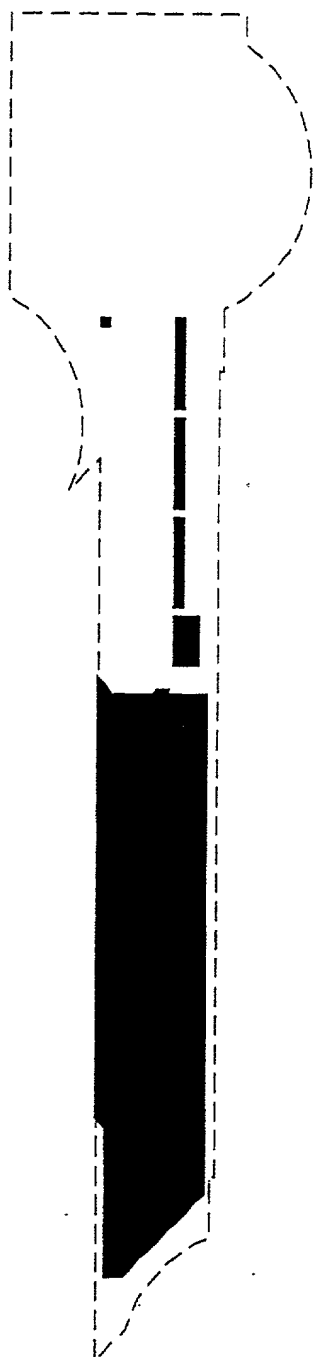


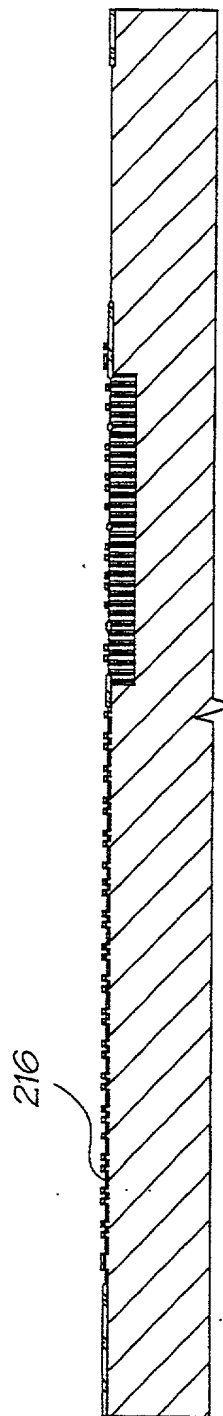
FIG. 27

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n+ mask

FIG. 28



n+ implant

FIG. 29

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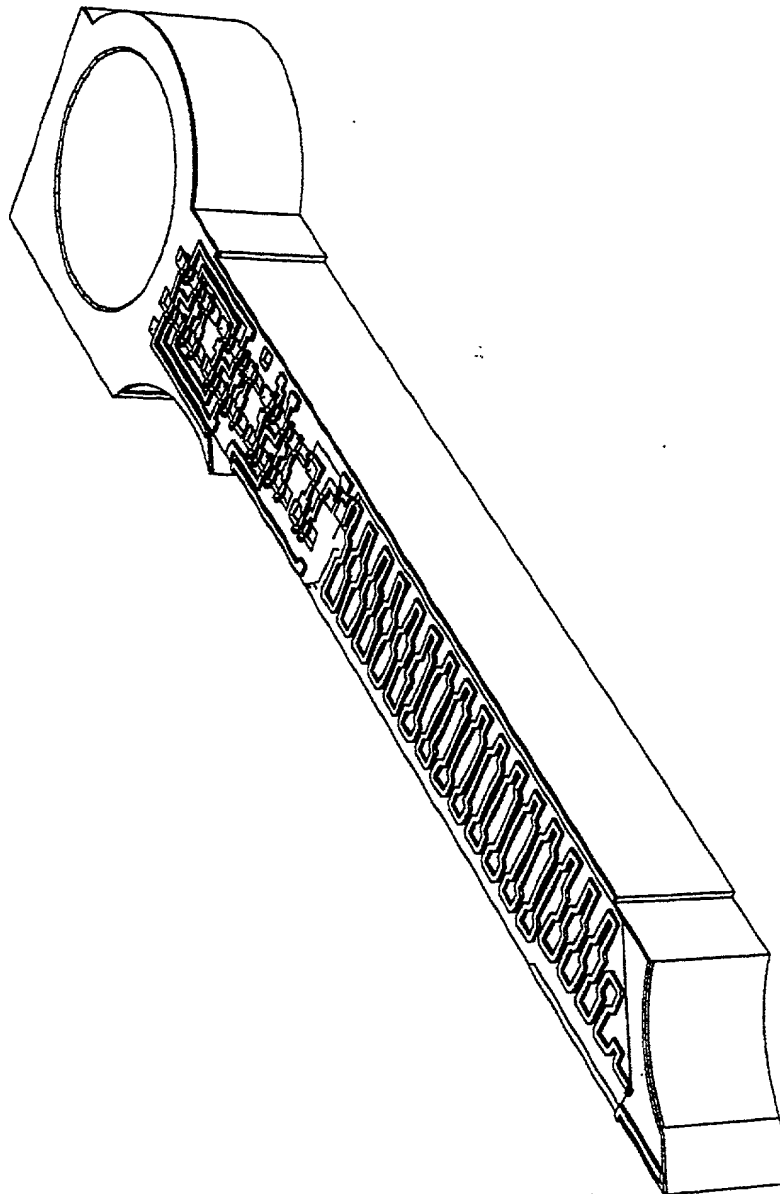


FIG. 30

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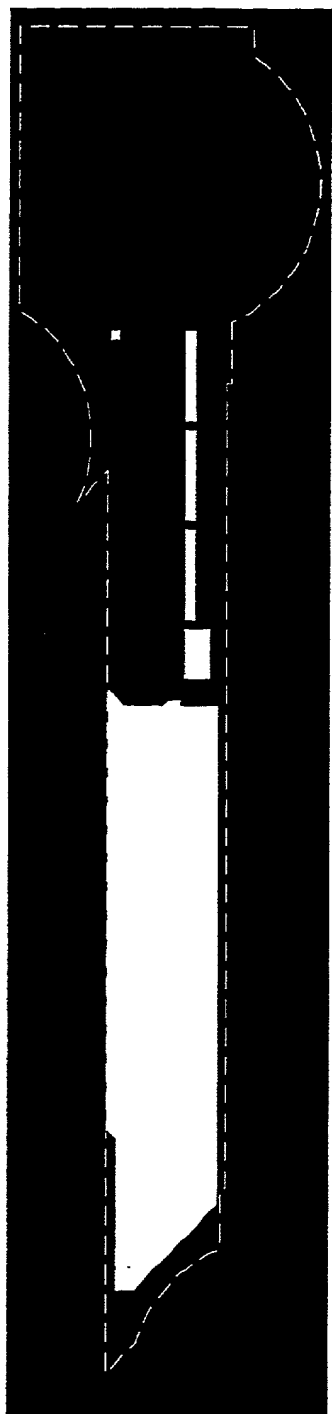


FIG. 31

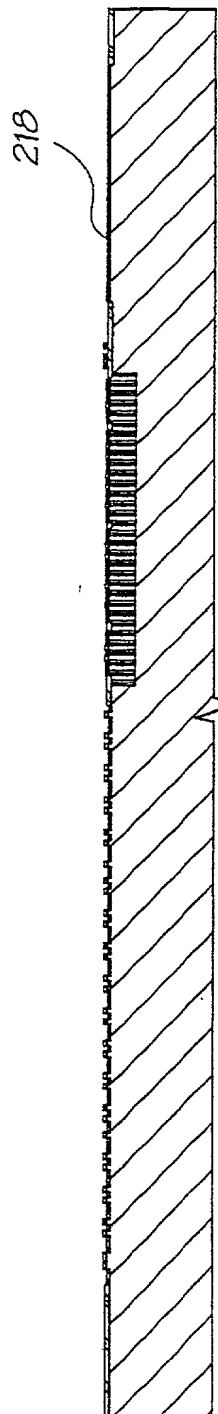


FIG. 32

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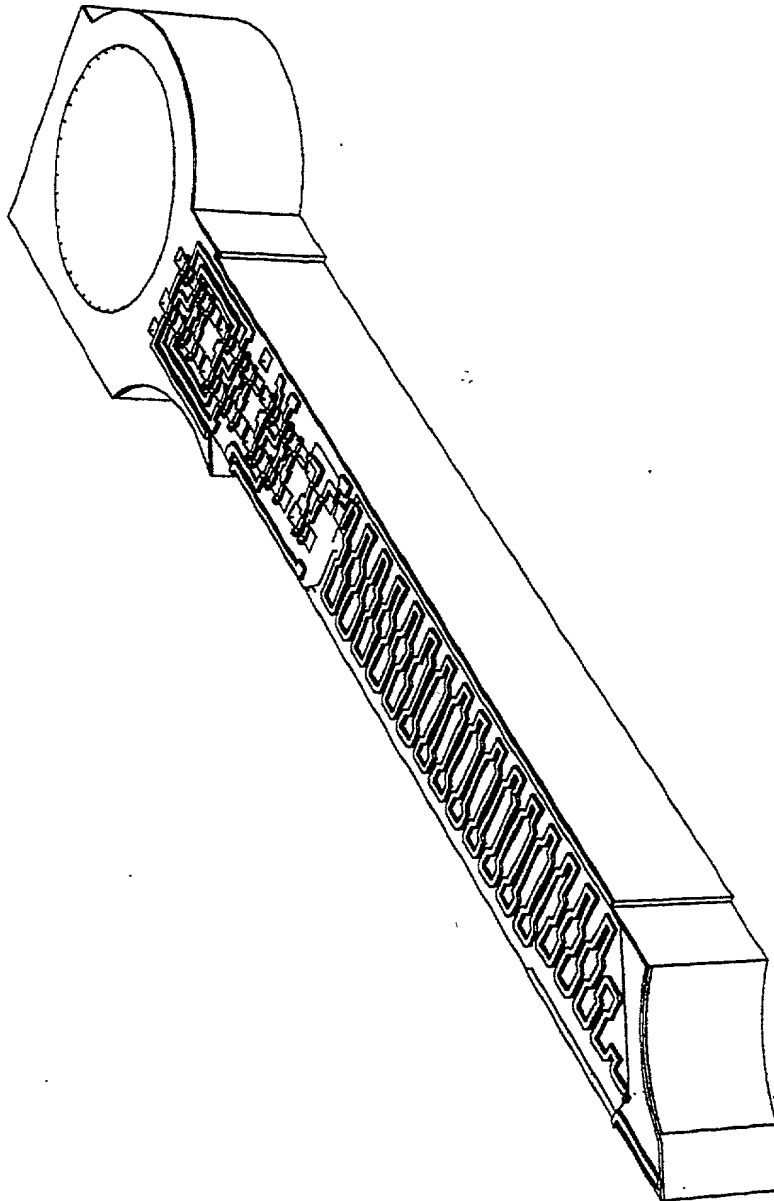
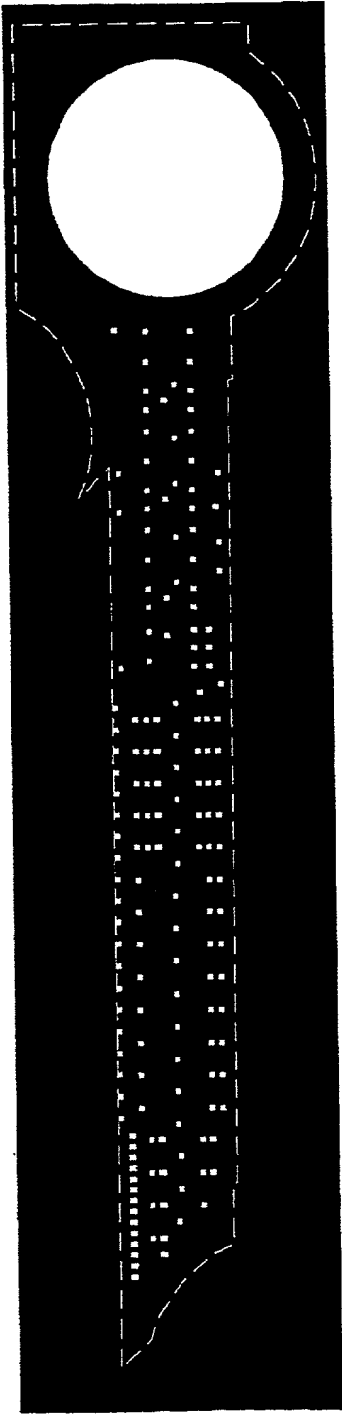
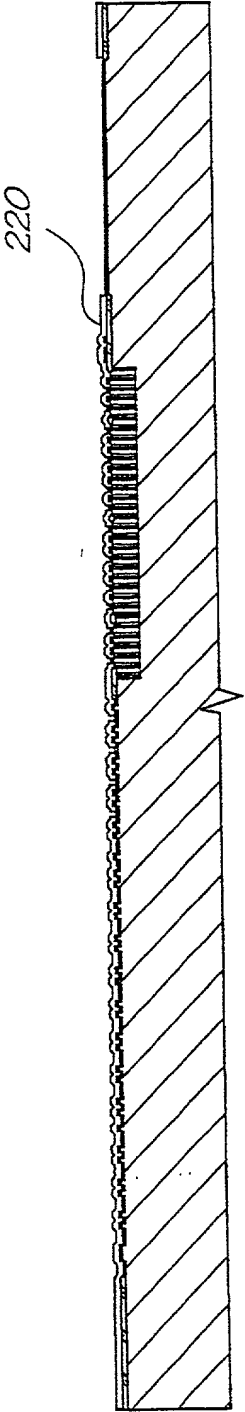


FIG. 33



Contacts mask

FIG. 34



Deposit ILD 1, etch contacts

FIG. 35

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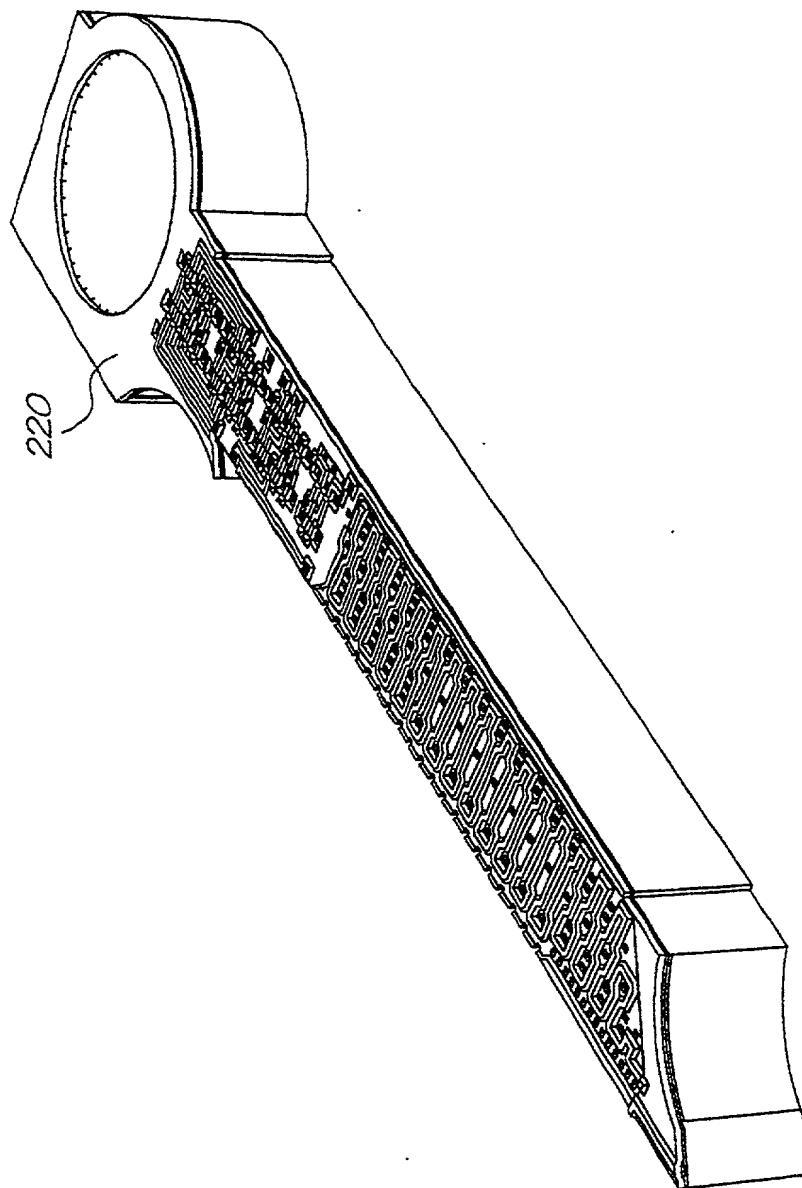
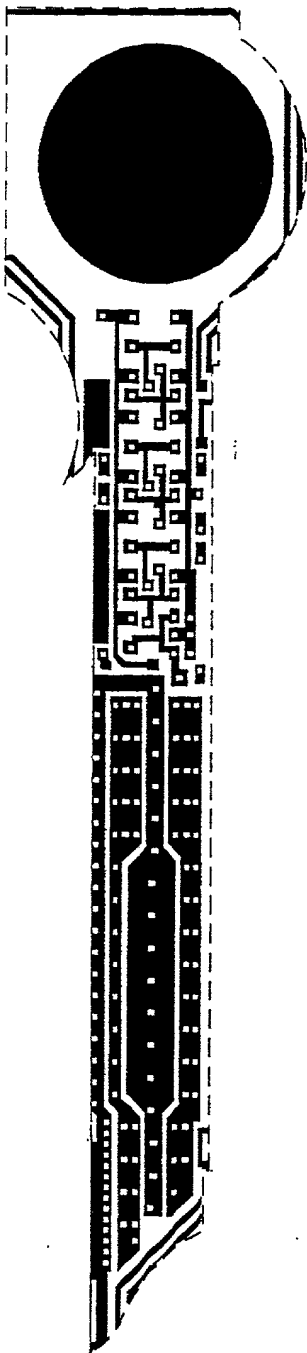
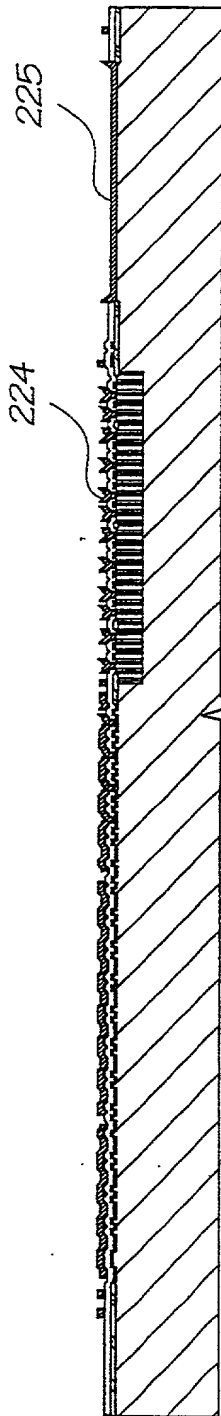


FIG. 36



Metal 1 mask

FIG. 37



Deposit Metal 1

FIG. 38

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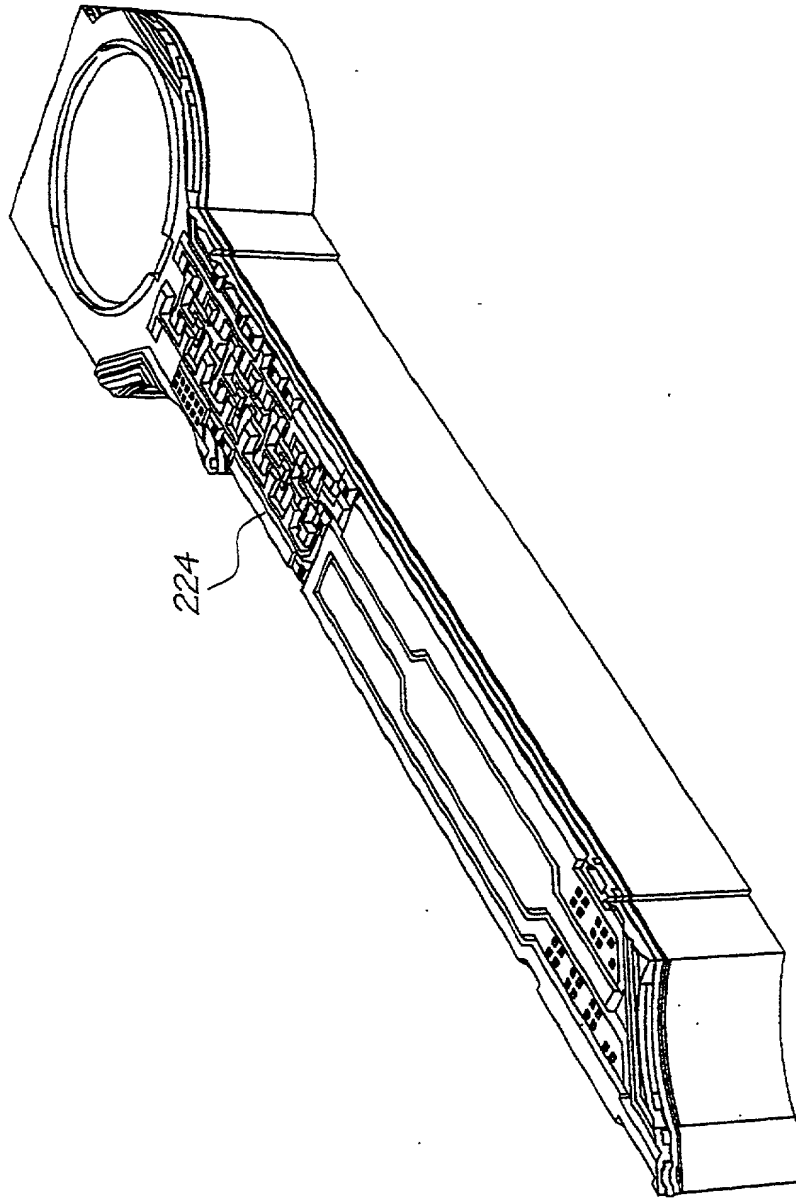
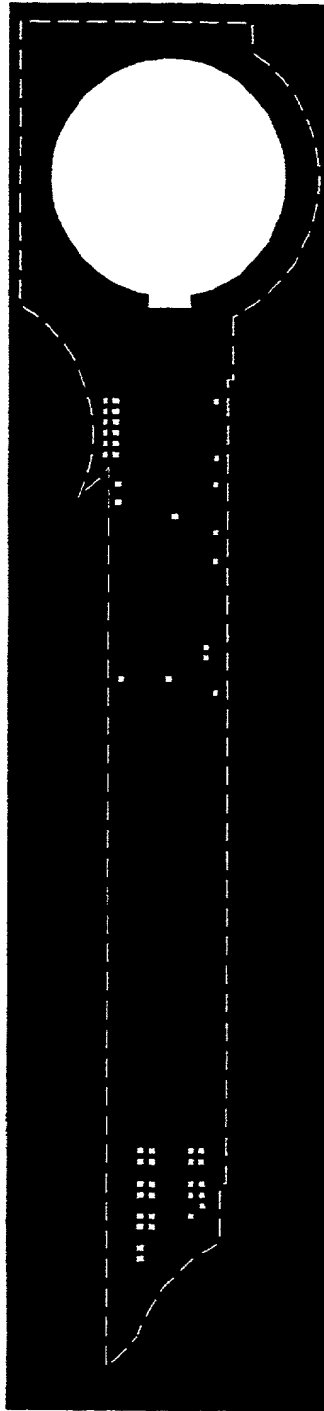


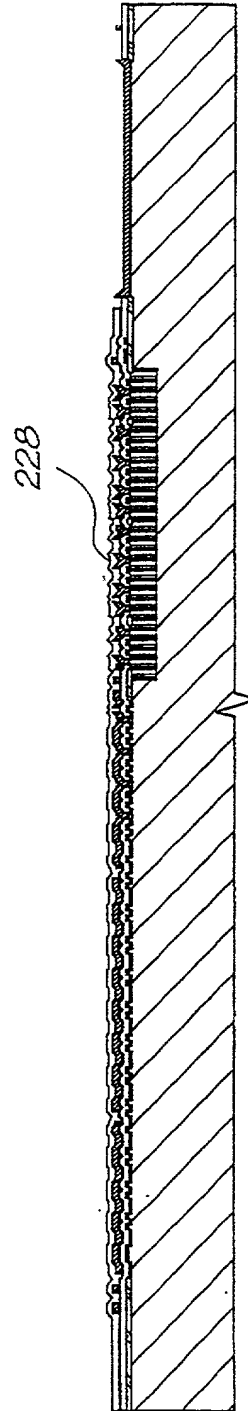
FIG. 39

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Via 1 mask

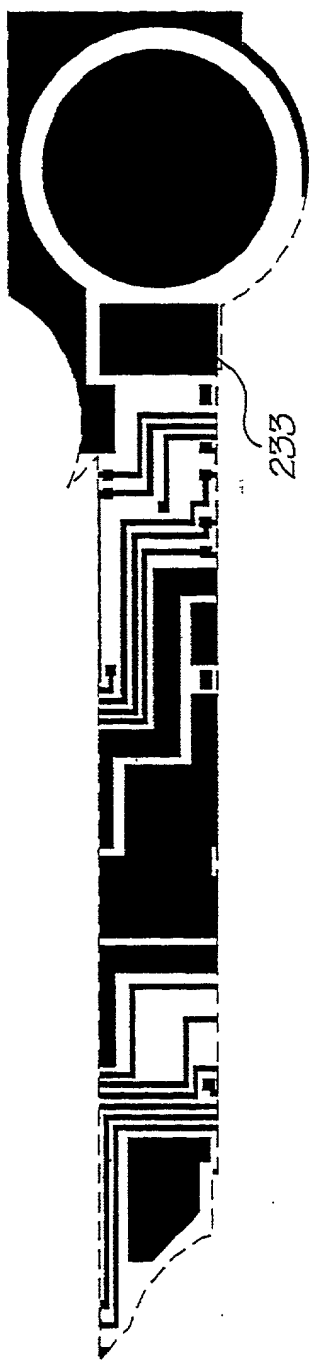
FIG. 40



Deposit ILD 2, etch vias

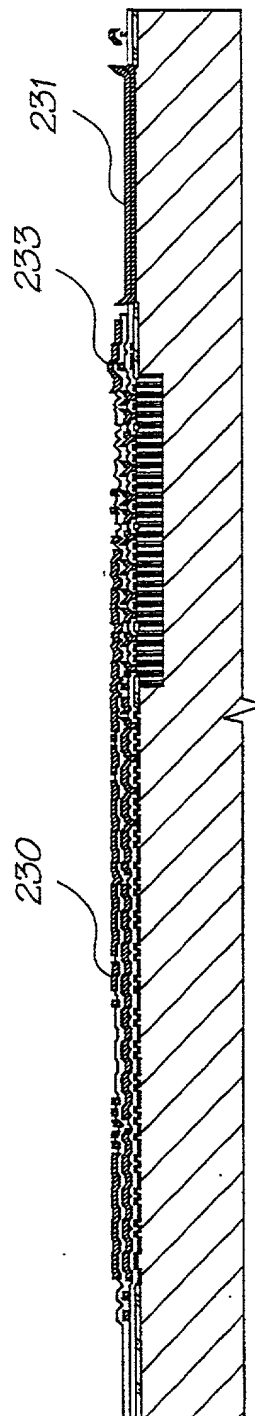
FIG. 41

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Metal 2 mask

FIG. 42



Deposit metal 2

FIG. 43

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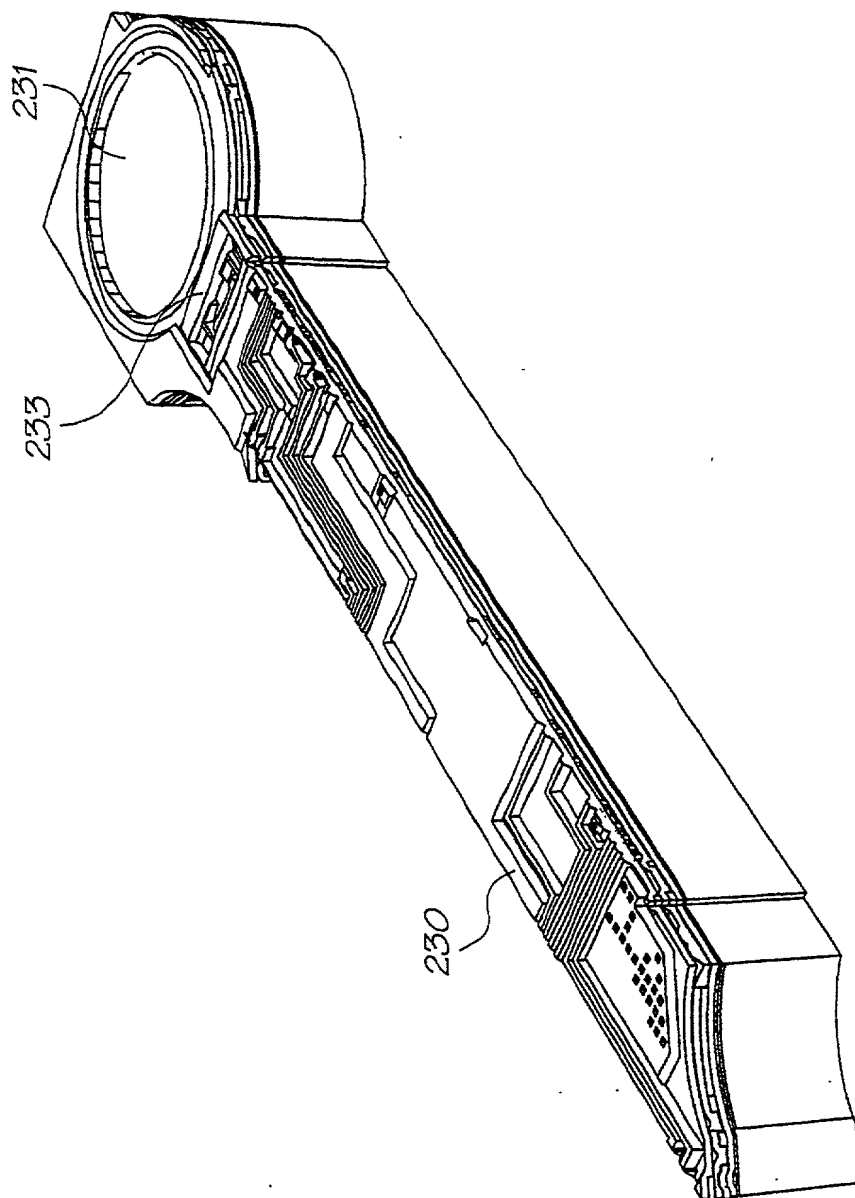
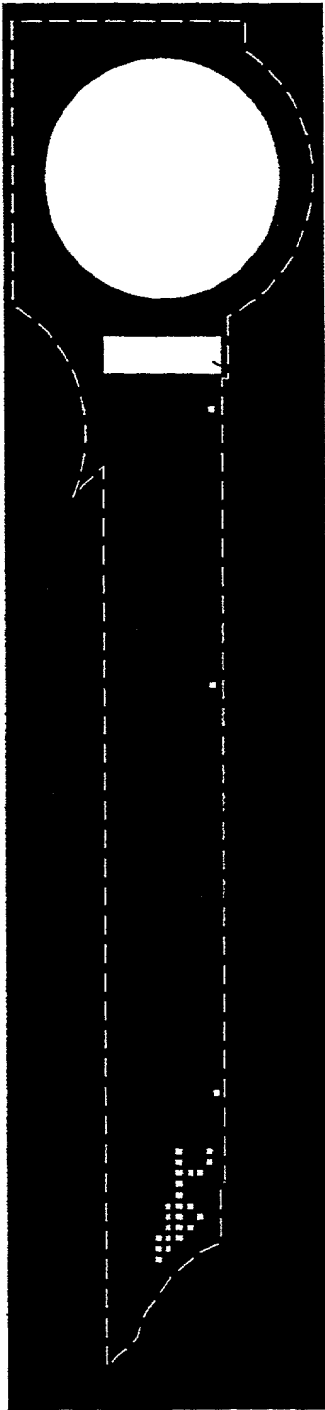


FIG. 44

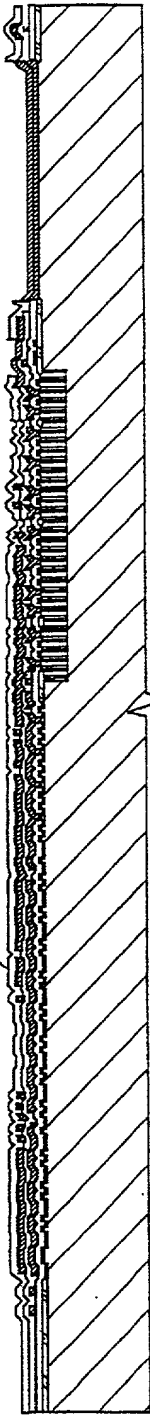
FIG. 45



Via 2 mask

FIG. 45

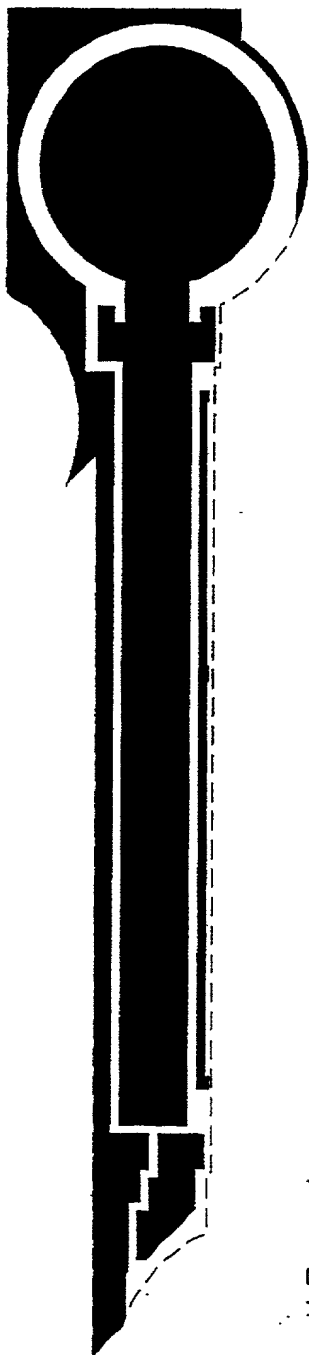
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Deposit ILD 3, etch vias

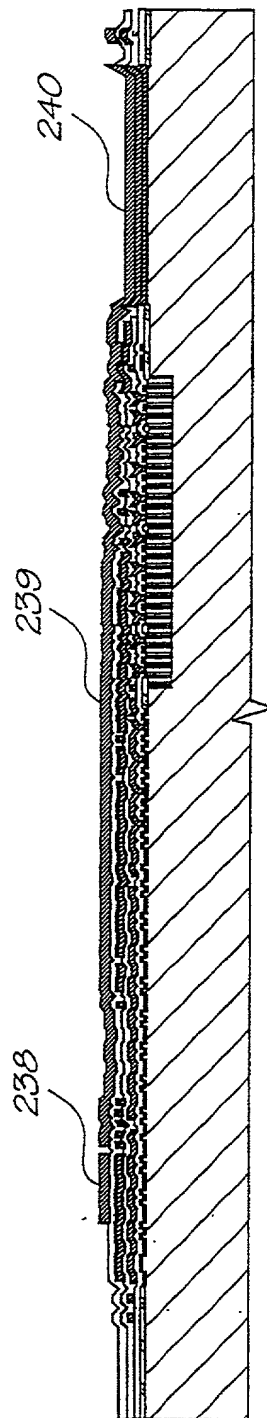
FIG. 46

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Metal 3 mask

FIG. 47



Deposit metal 3

FIG. 48

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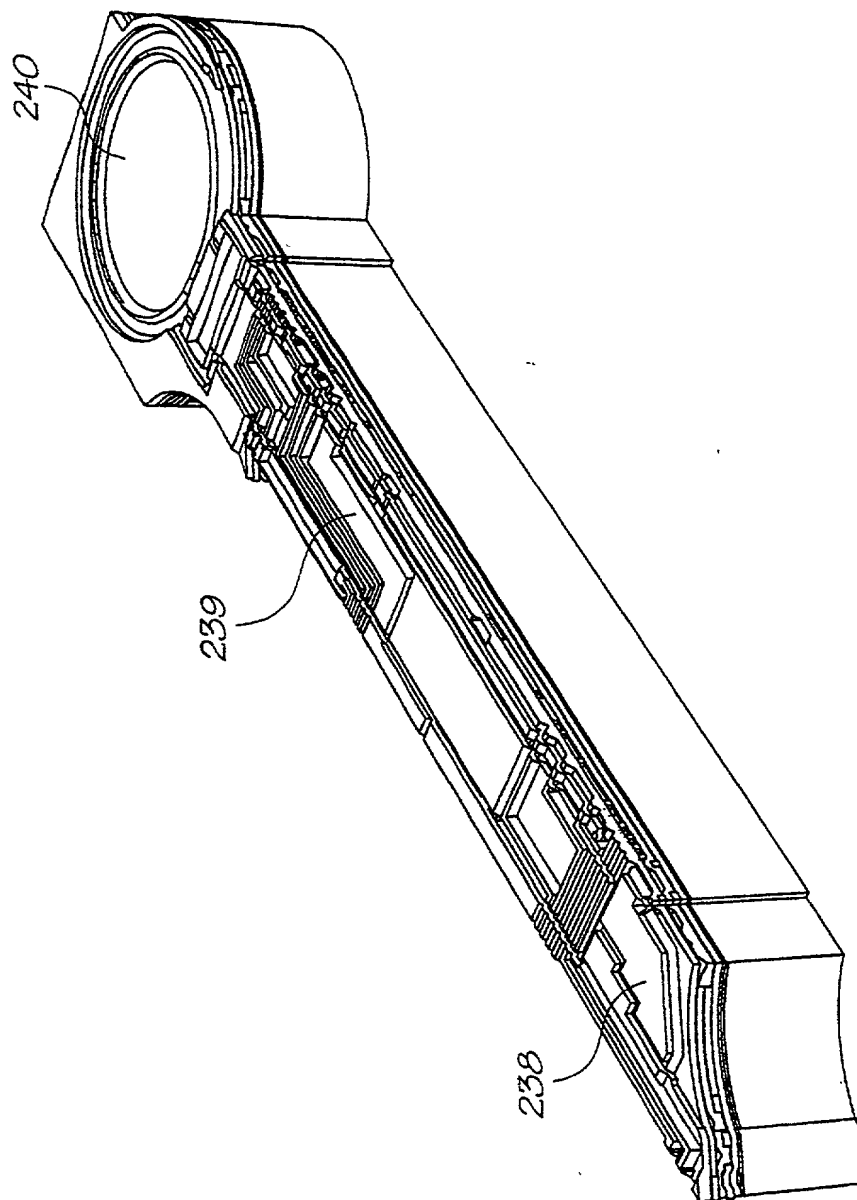
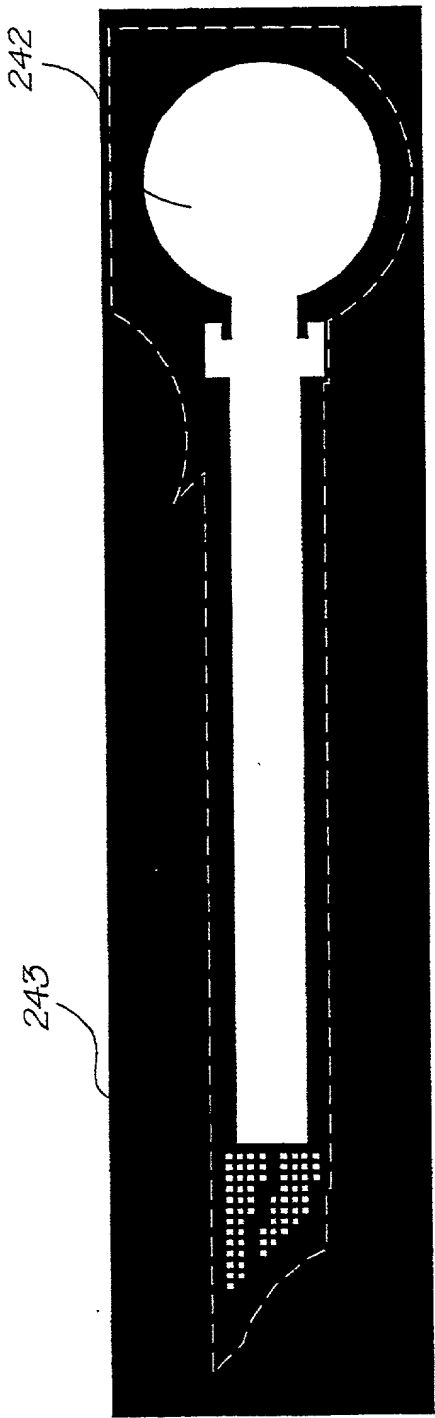


FIG. 49



Via 3 / Passivation mask

FIG. 50

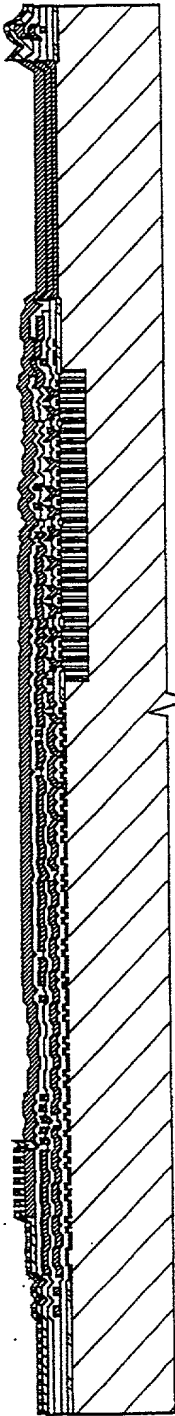


FIG. 51

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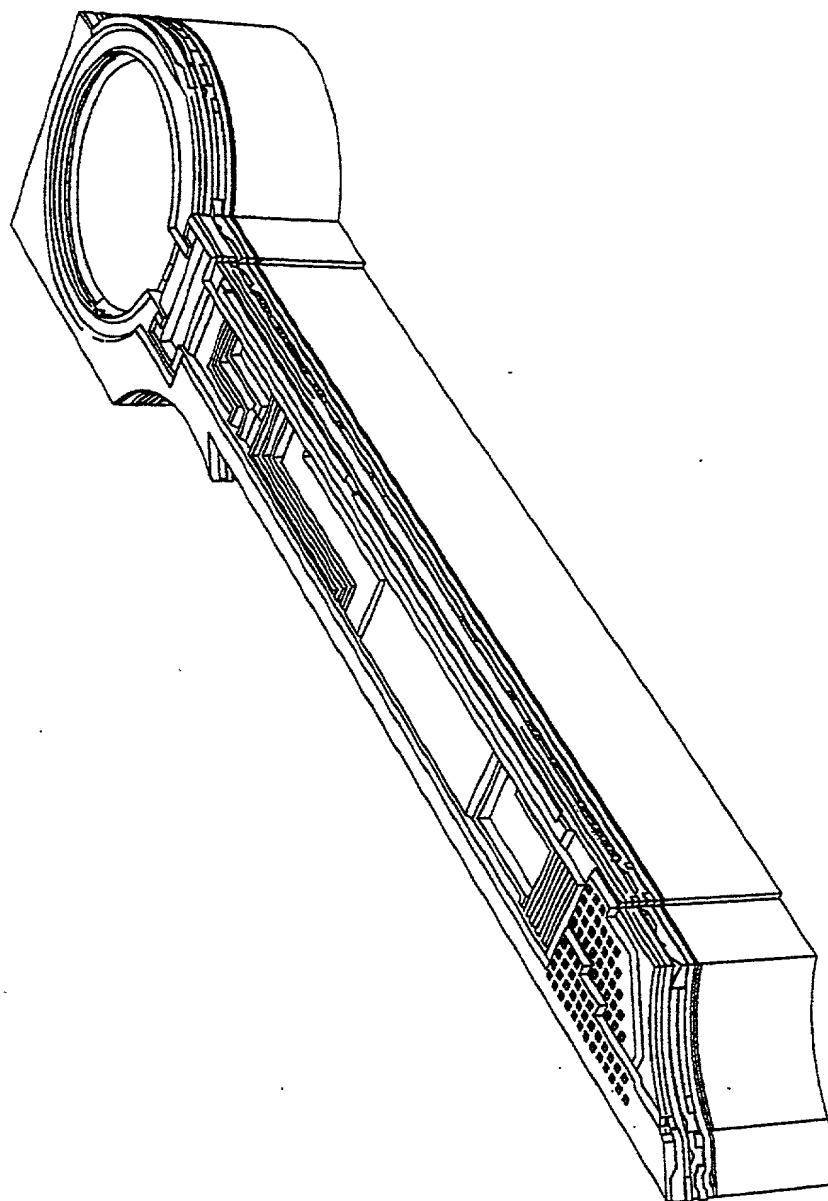
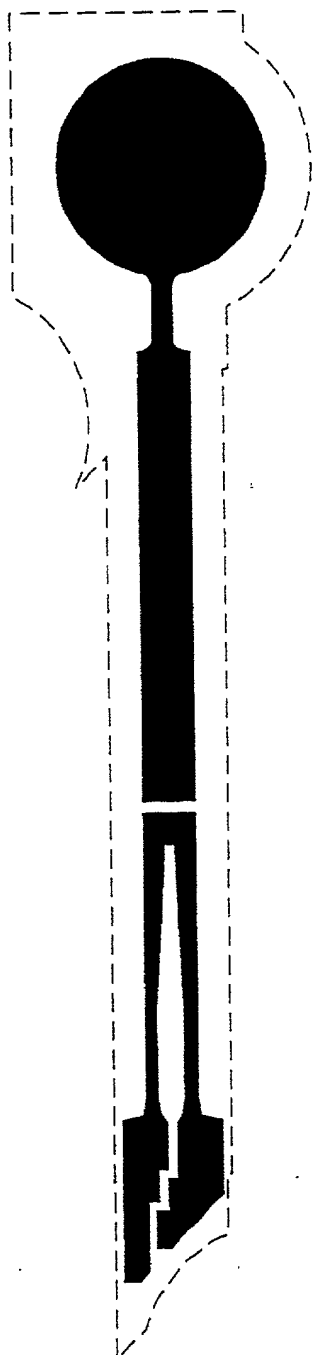


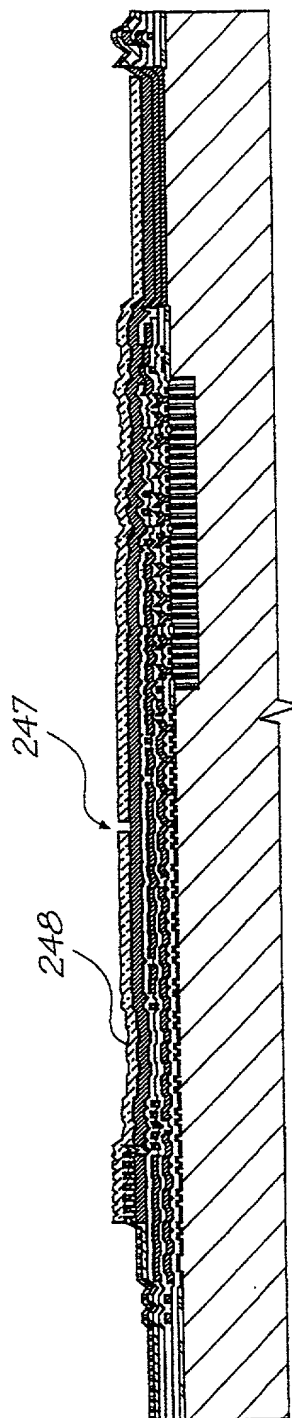
FIG. 52

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Heater mask

FIG. 53



Deposit heater TiN

FIG. 54

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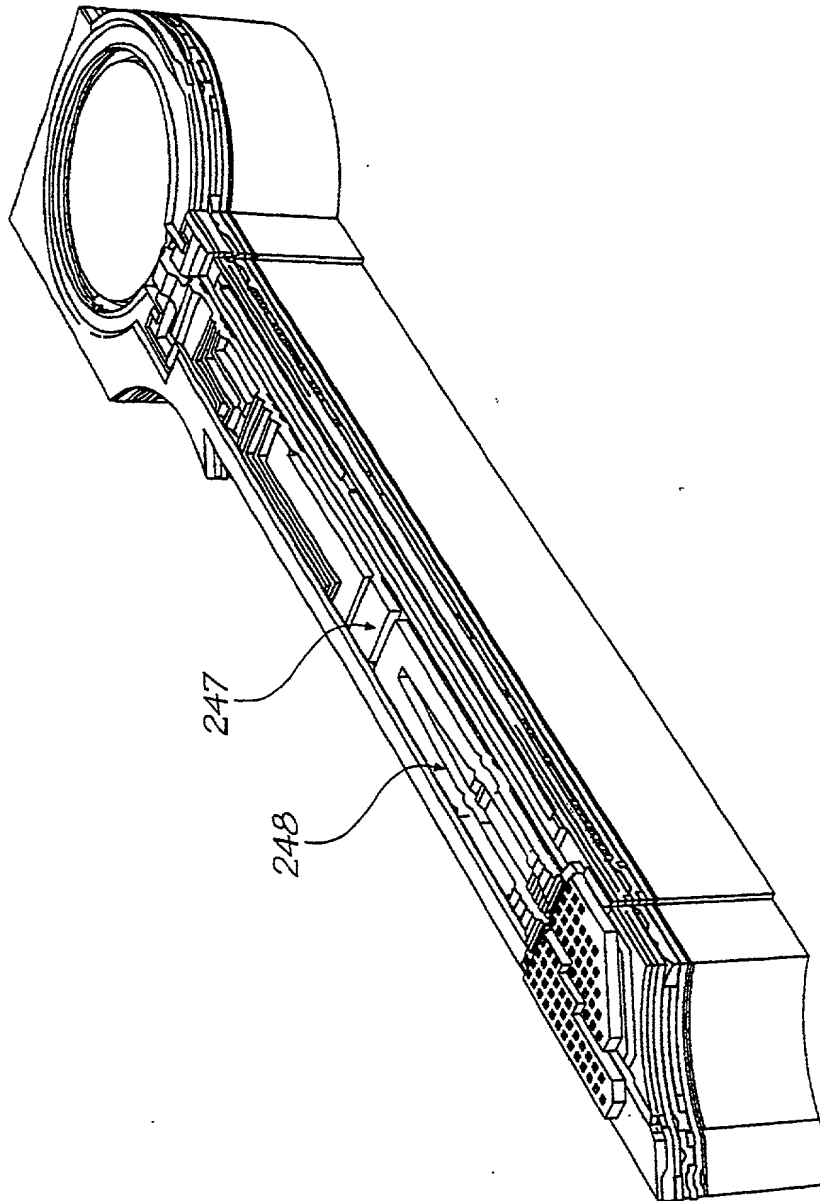
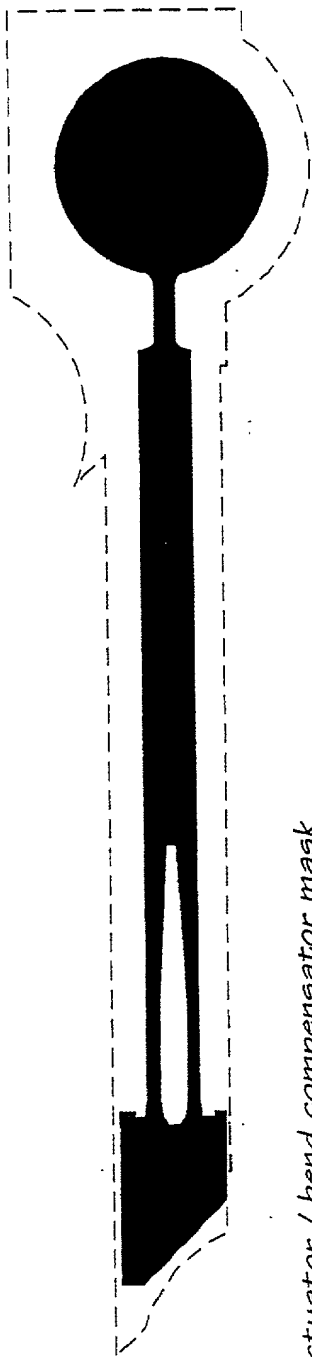
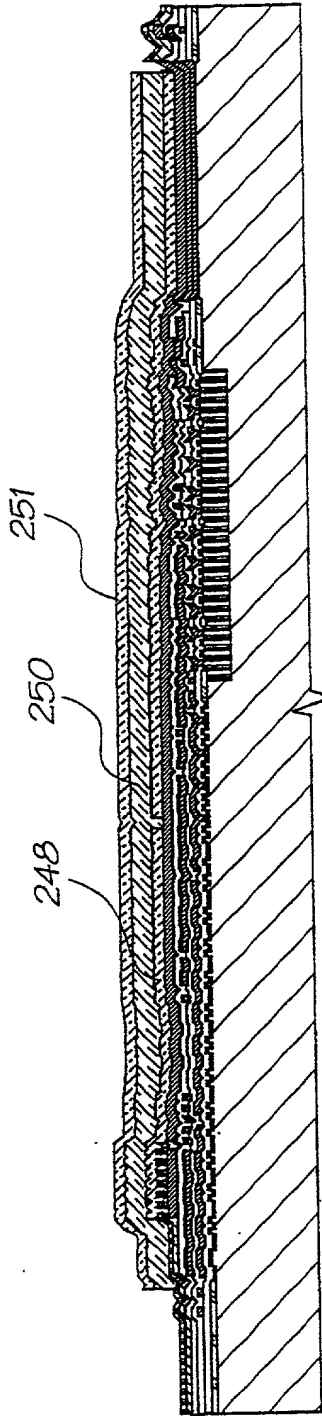


FIG. 55



Actuator / bend compensator mask
FIG. 56



Deposit actuator glass and bend compensator TiN, etch together
FIG. 57

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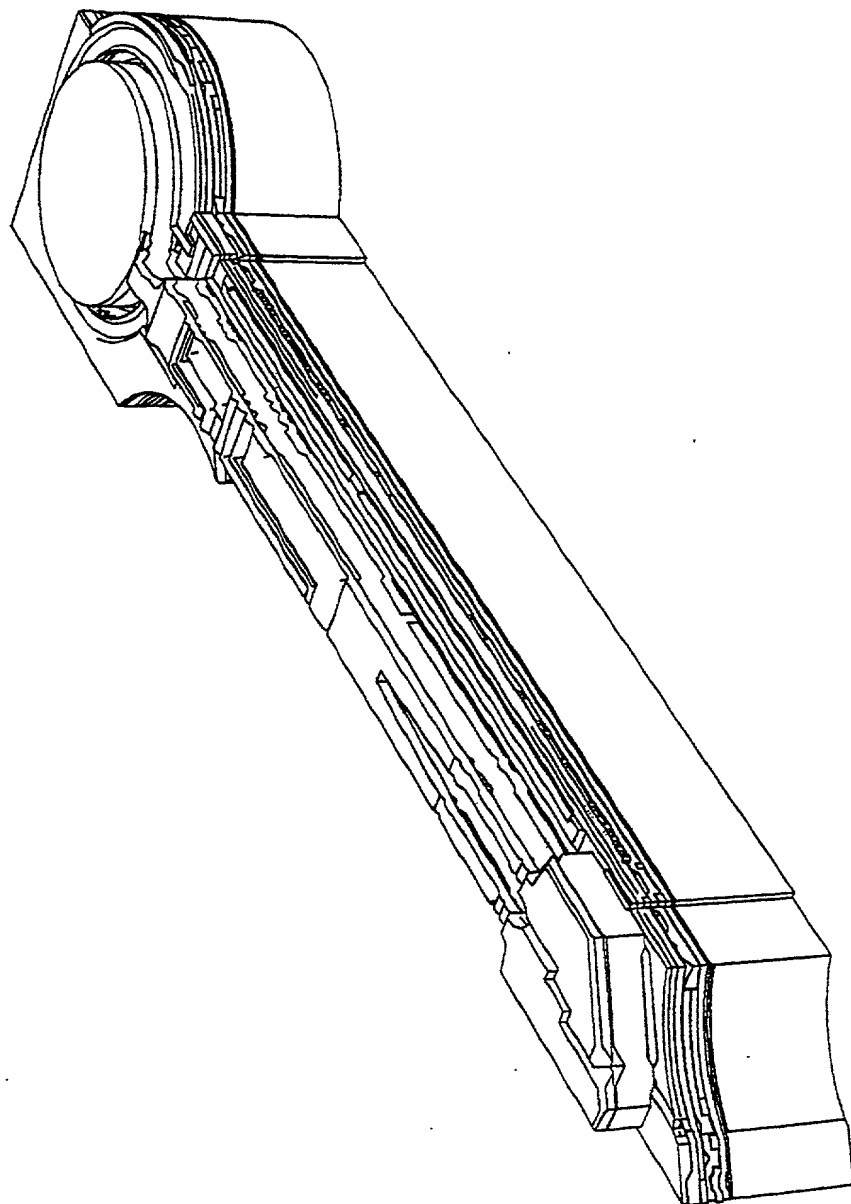
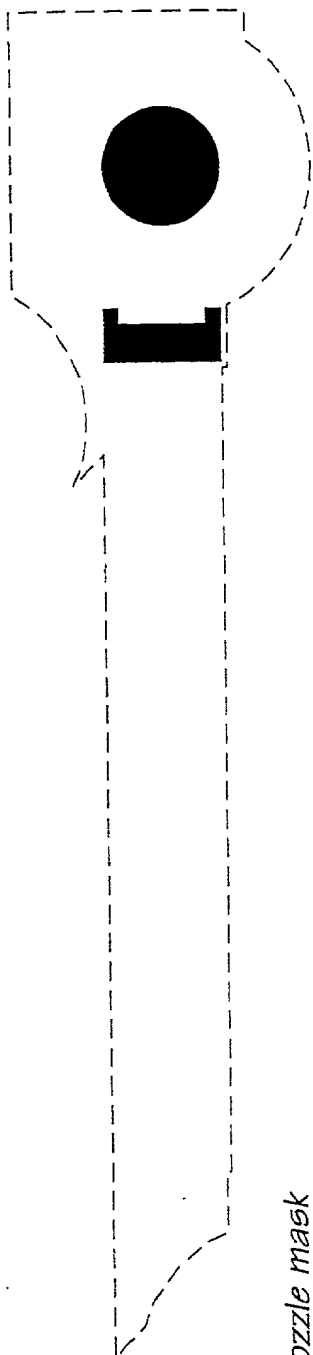


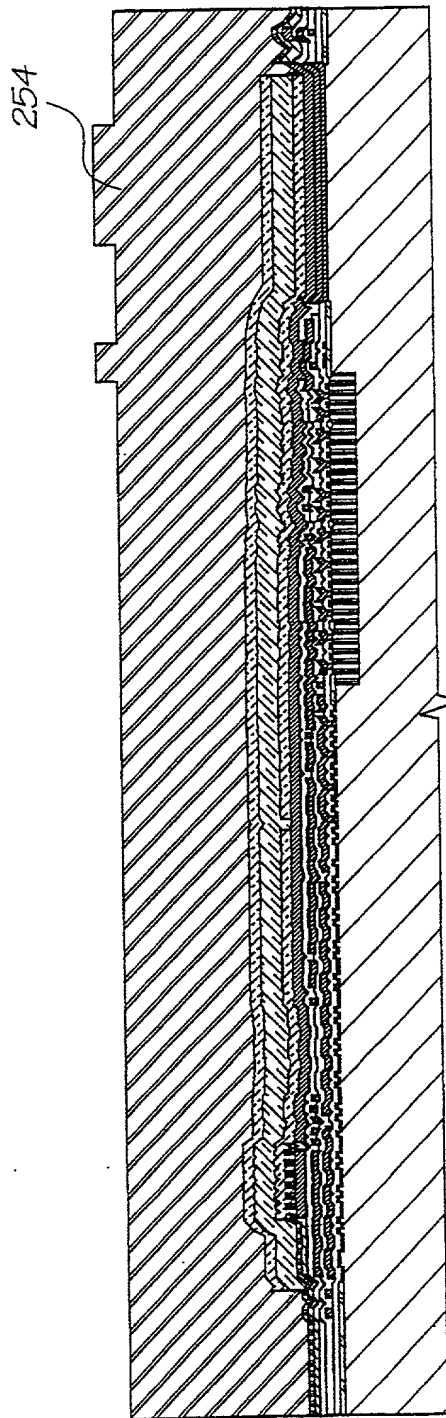
FIG. 58

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Nozzle mask

FIG. 59



Deposit sacrificial layer, etch nozzles

FIG. 60

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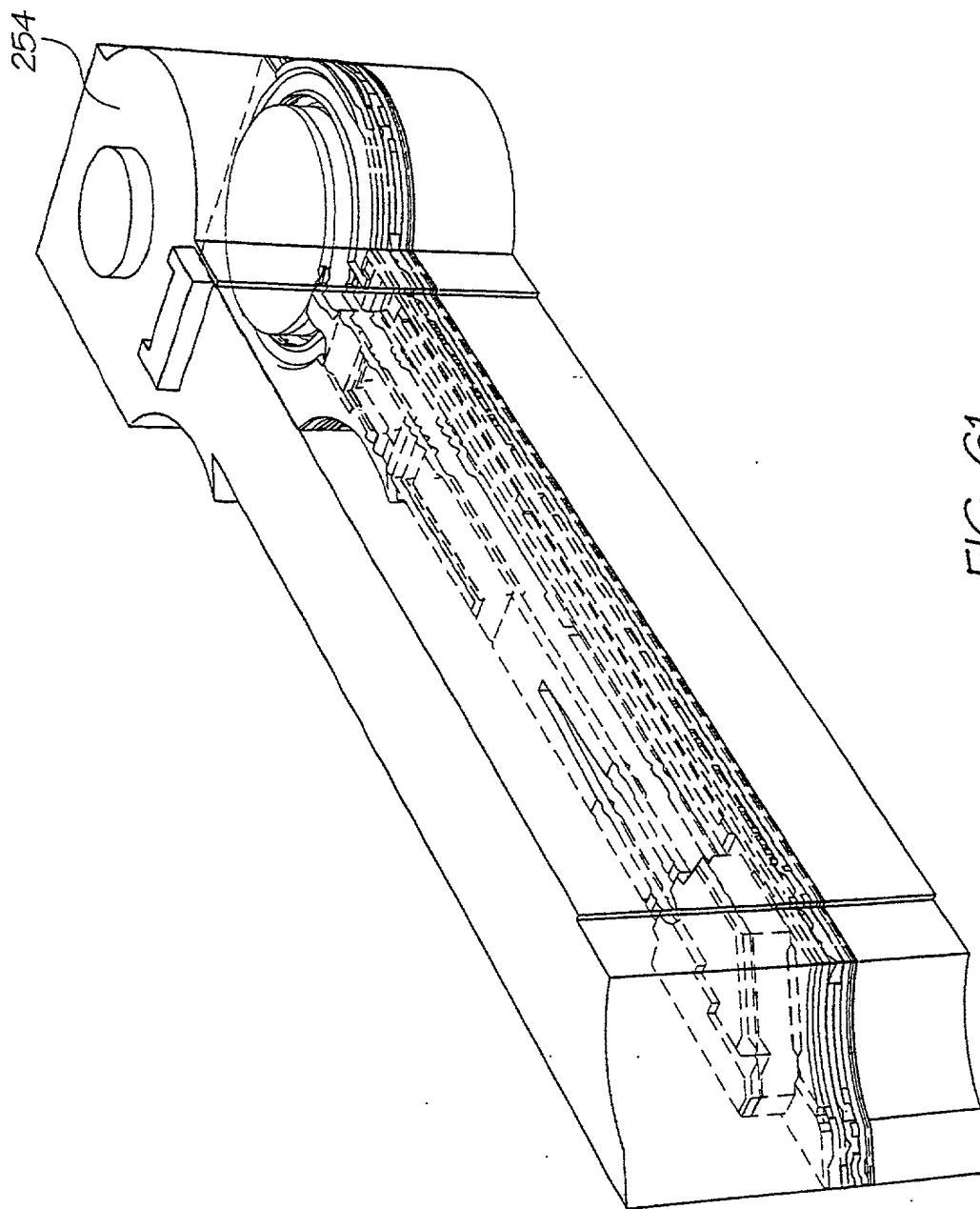


FIG. 61

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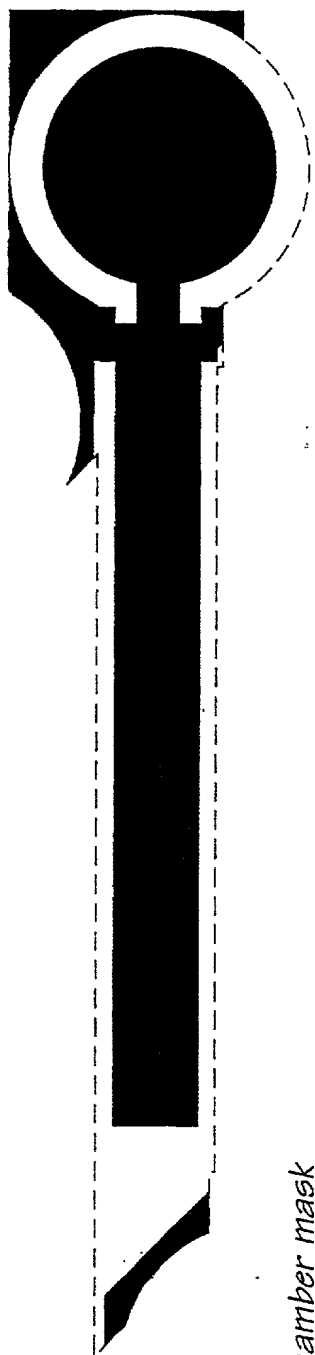


FIG. 62

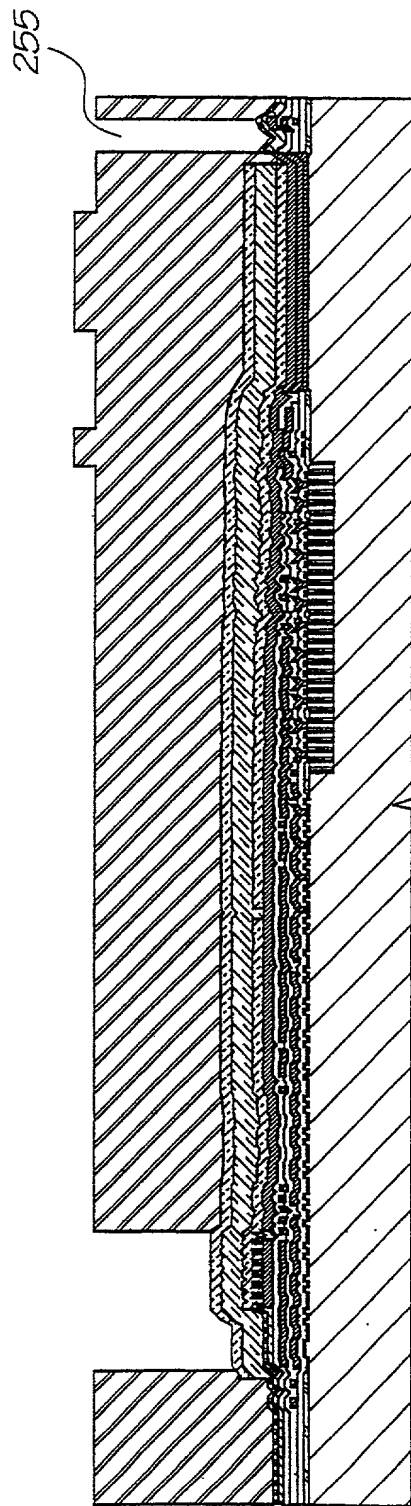


FIG. 63

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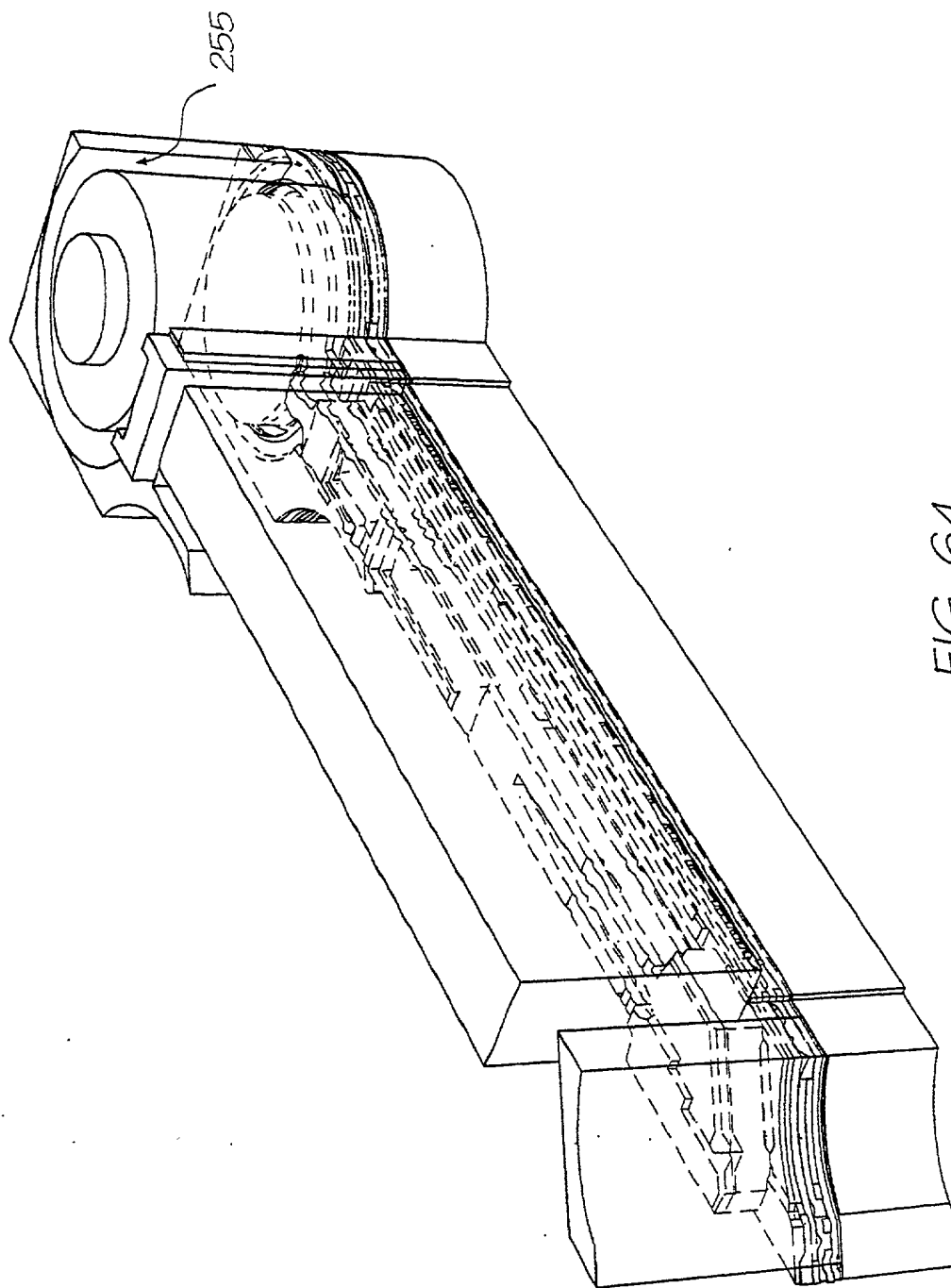
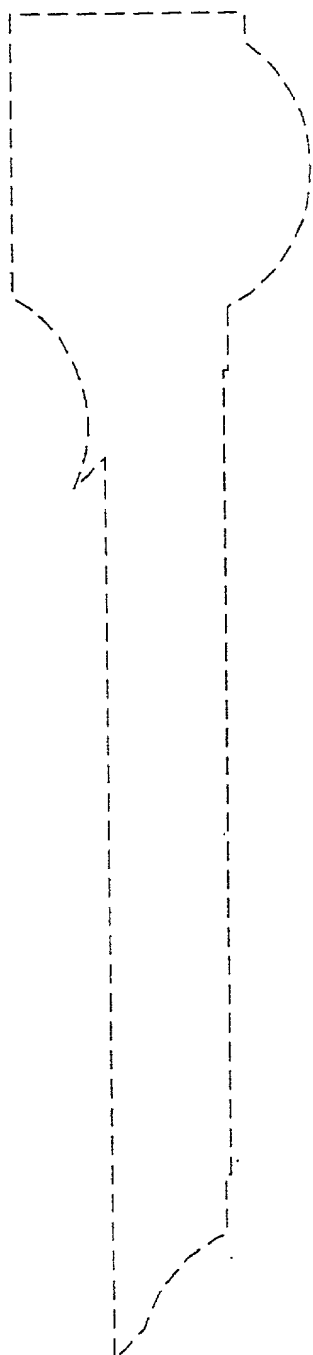


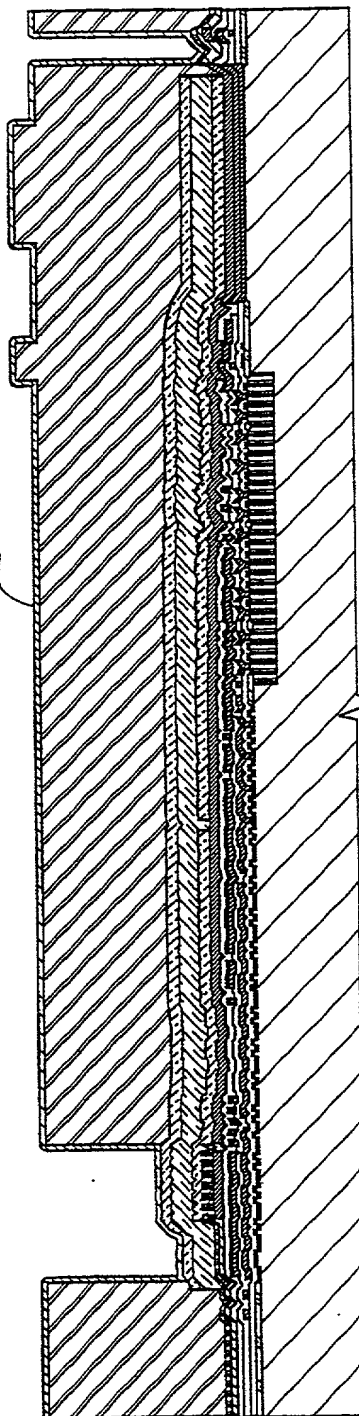
FIG. 64

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No mask

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Deposit chamber walls

FIG. 65

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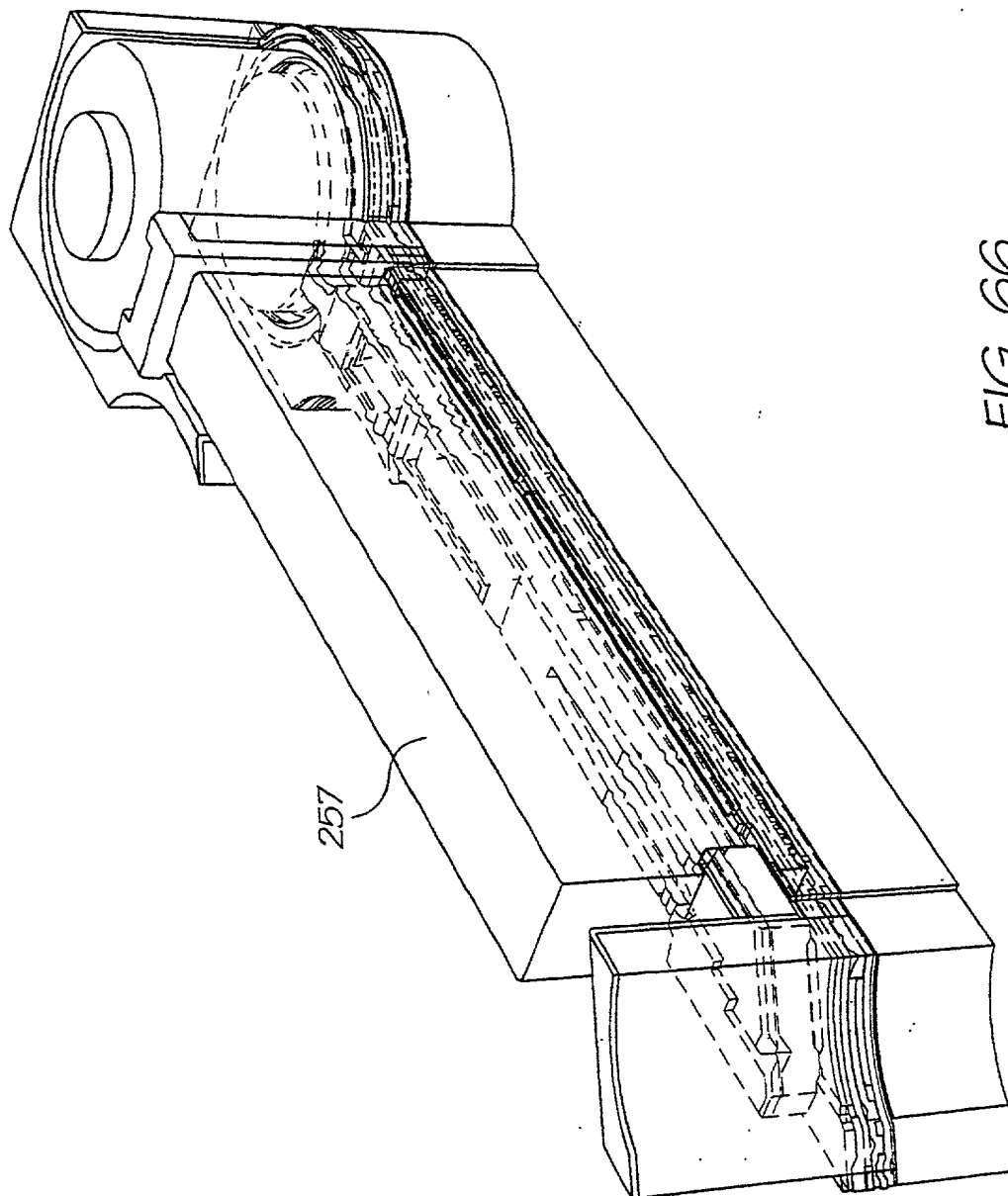
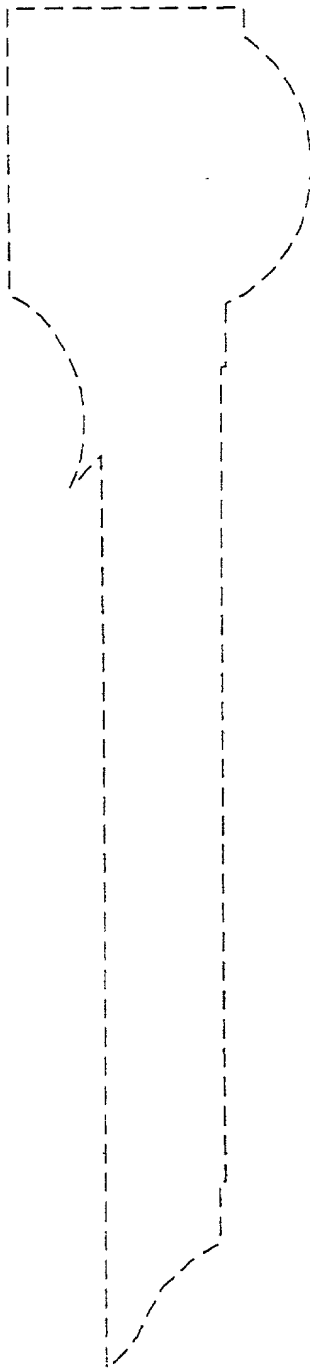


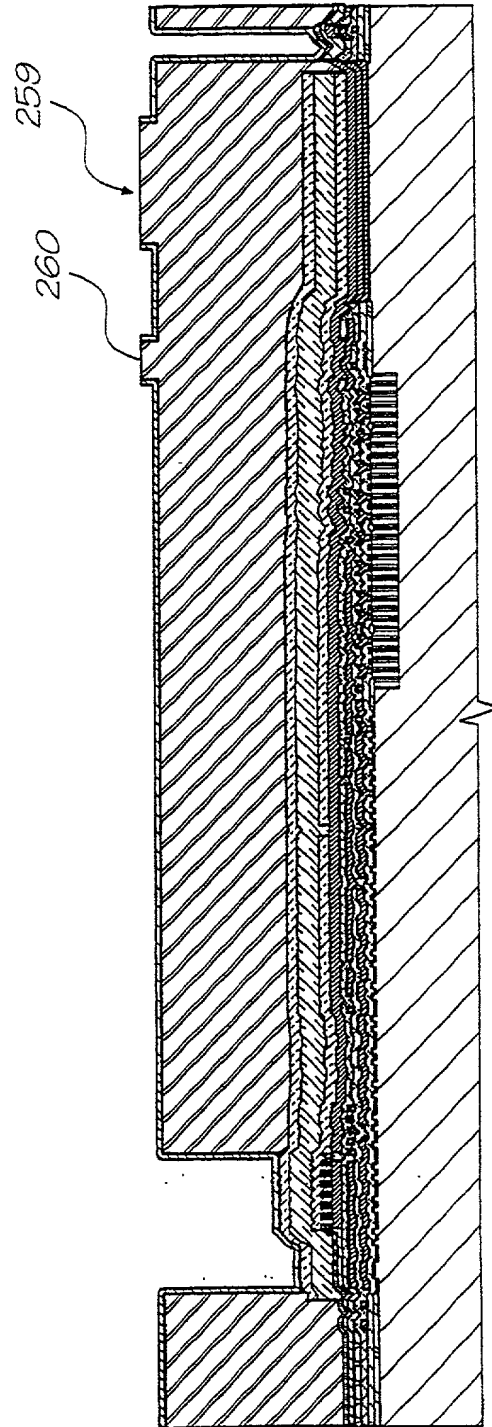
FIG. 66

FIG. 66

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No mask



Form self-aligned nozzles using CMP

FIG. 67

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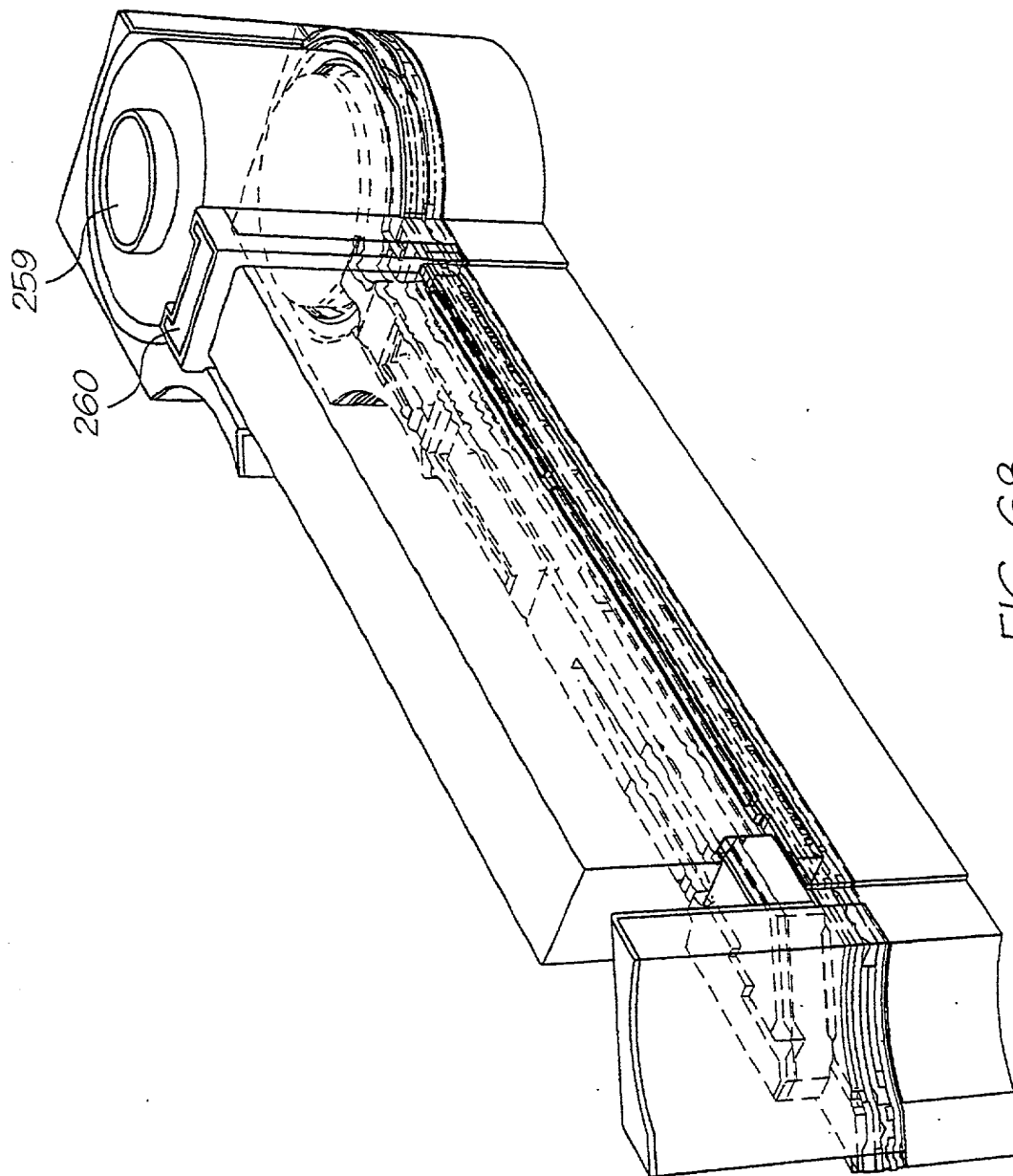
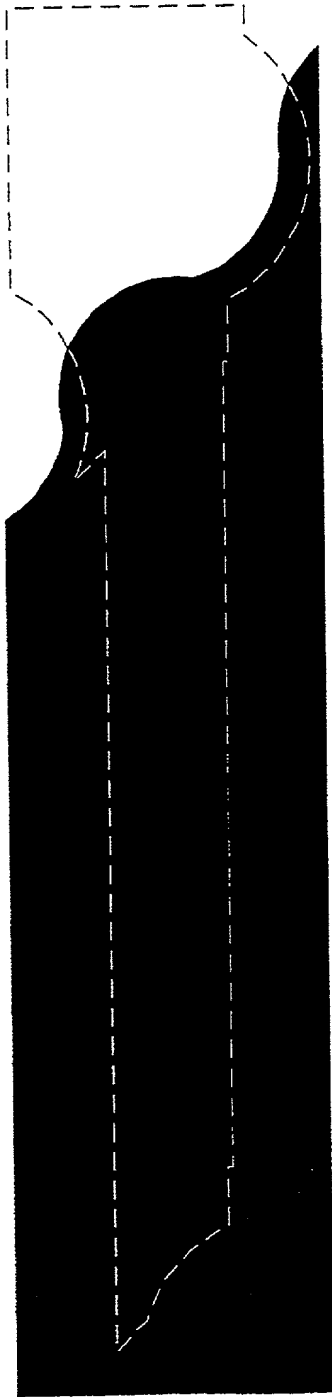


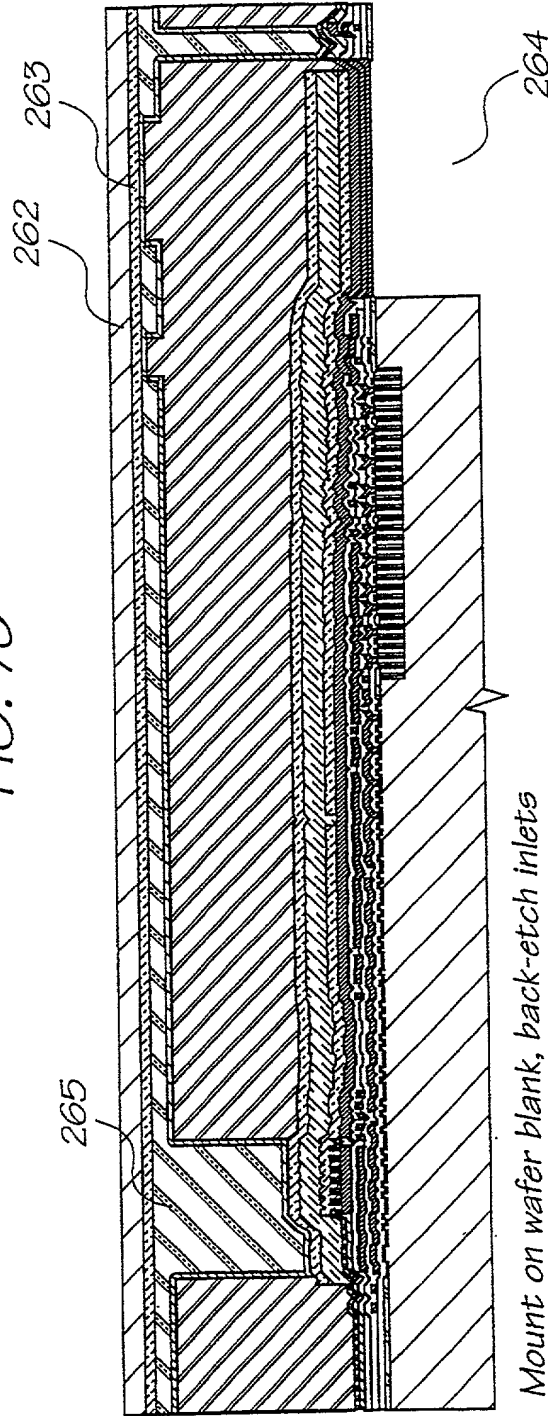
FIG. 68

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Back-etch inlet mask

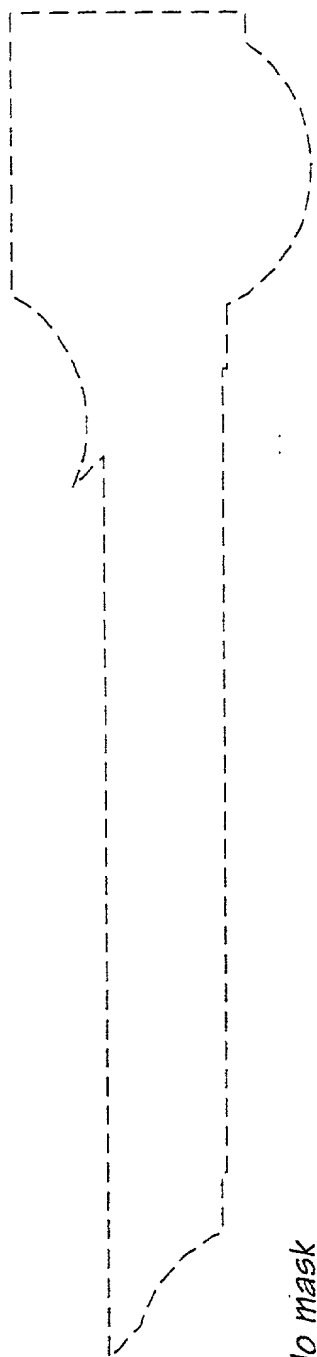
FIG. 70



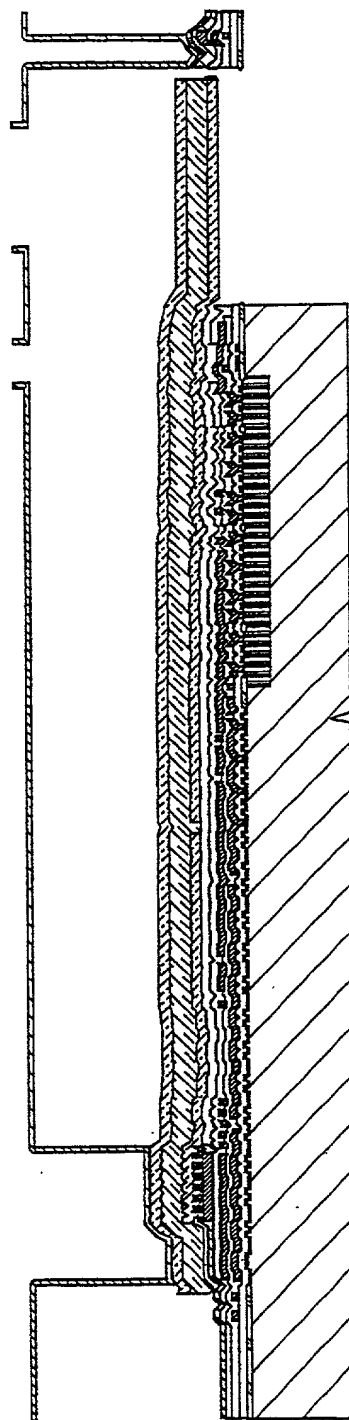
Mount on wafer blank, back-etch inlets

FIG. 69

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No mask



Detach from wafer blank, etch sacrificial material

FIG. 71

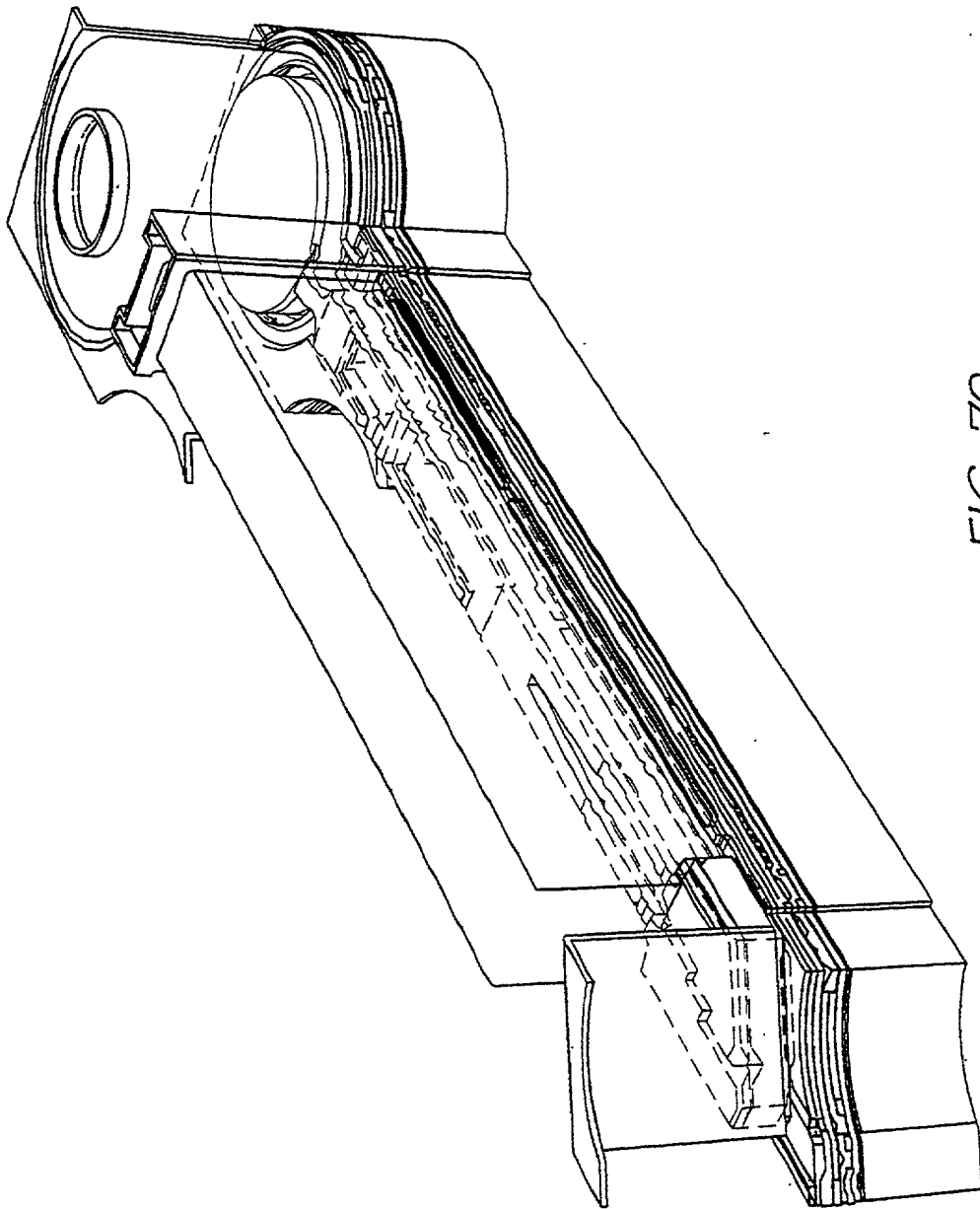


FIG. 72

FIG. 72

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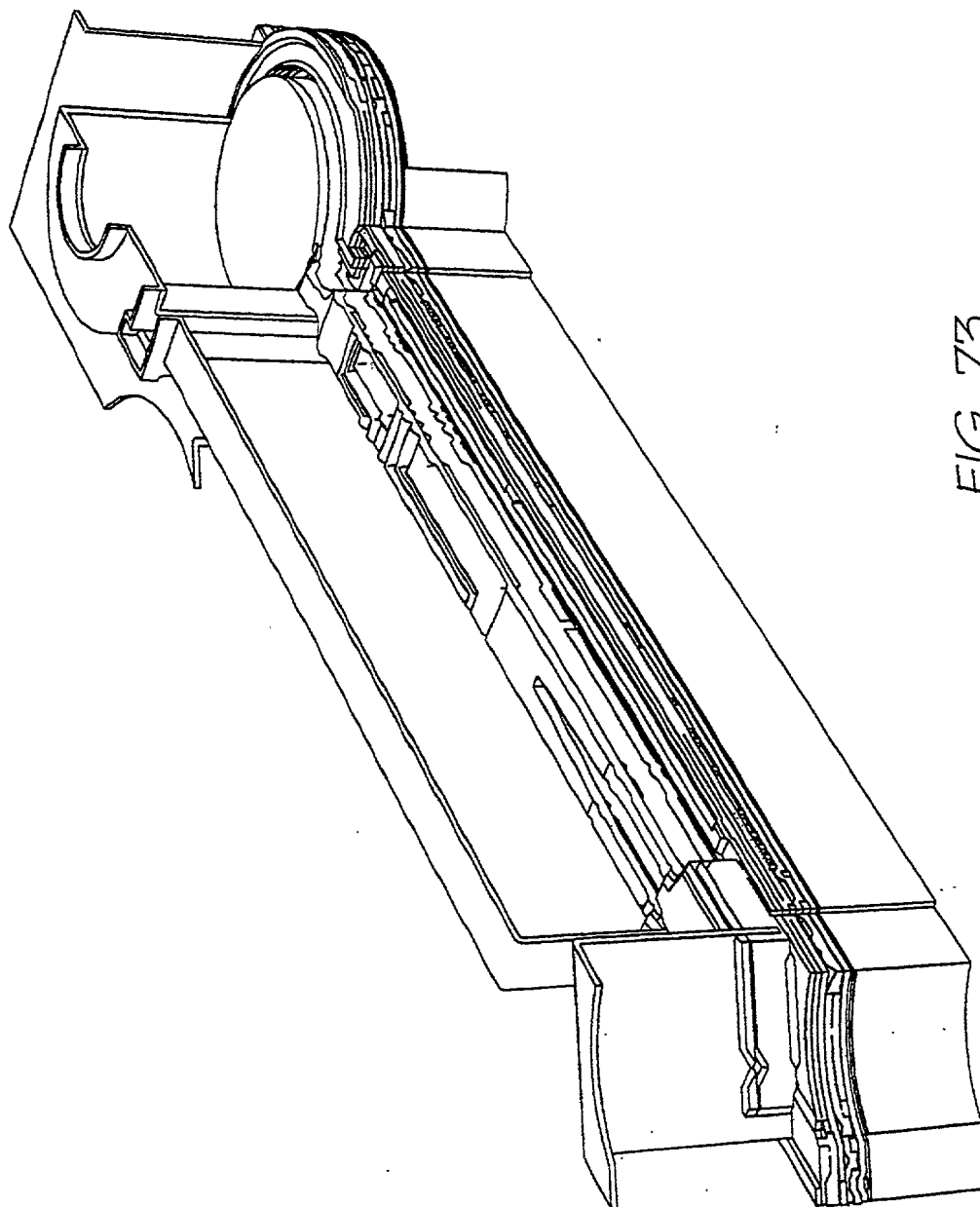
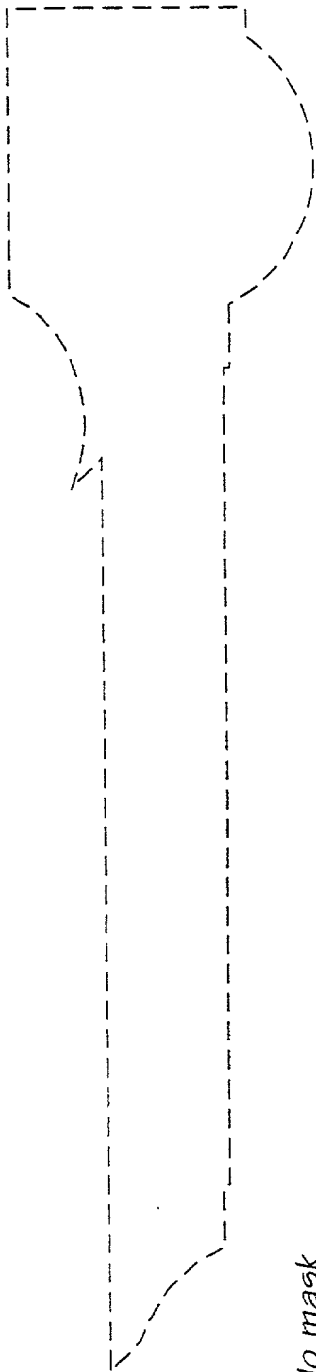


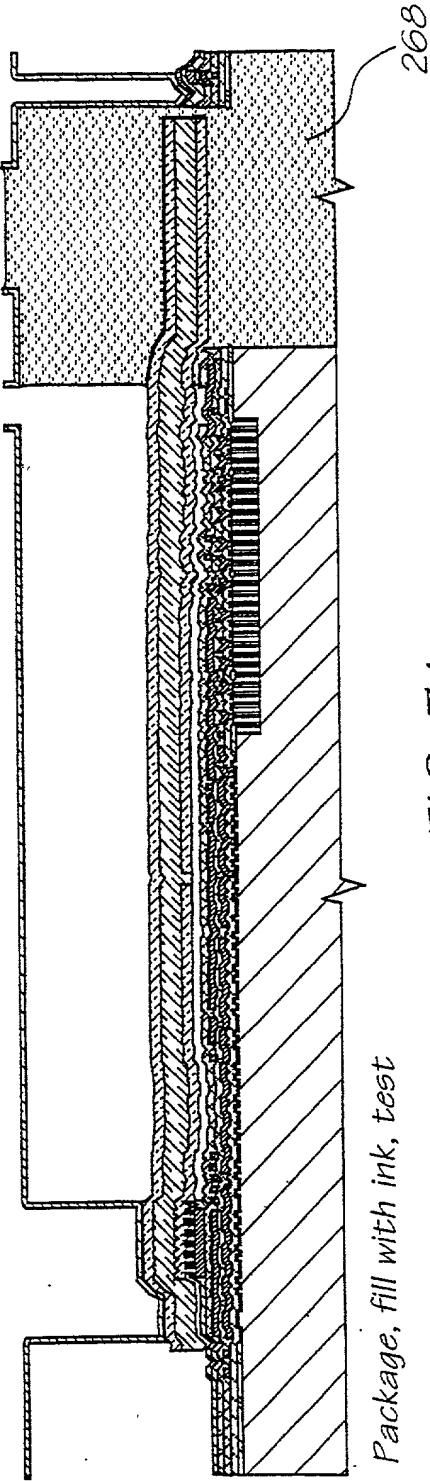
FIG. 73

FIG. 73

FIG. 74



No mask



Package, fill with ink, test

FIG. 74

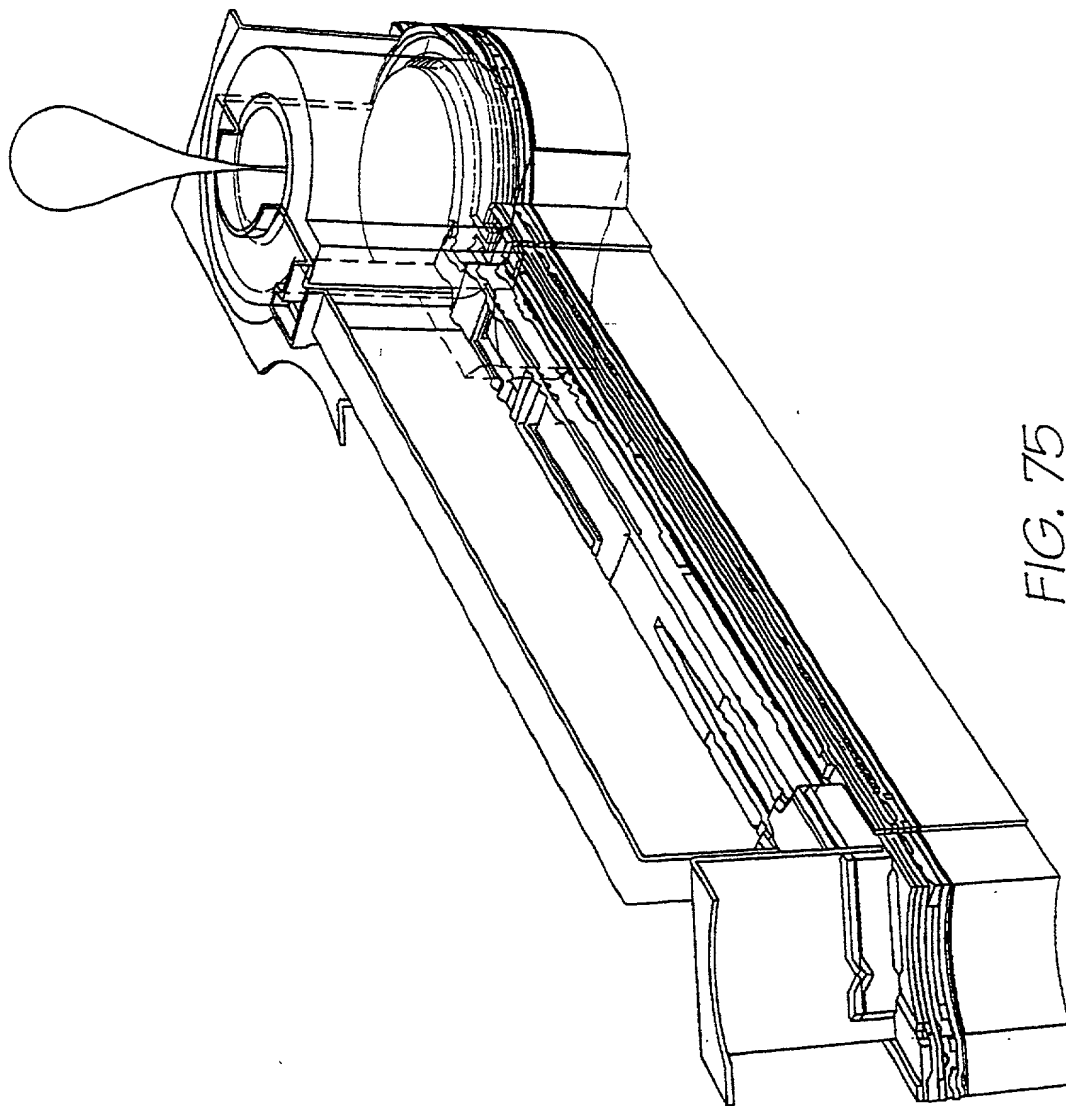


FIG. 75

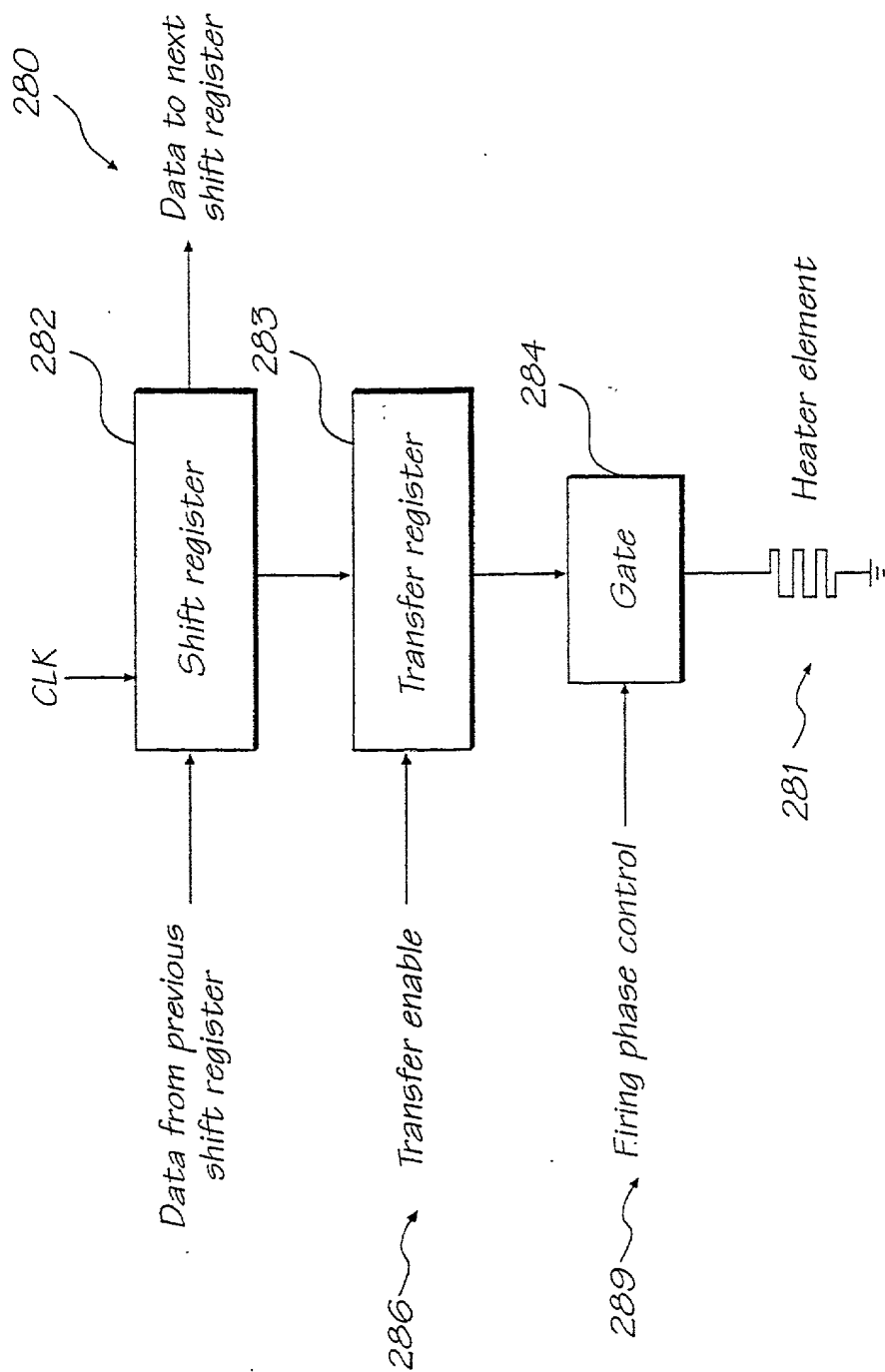


FIG. 76

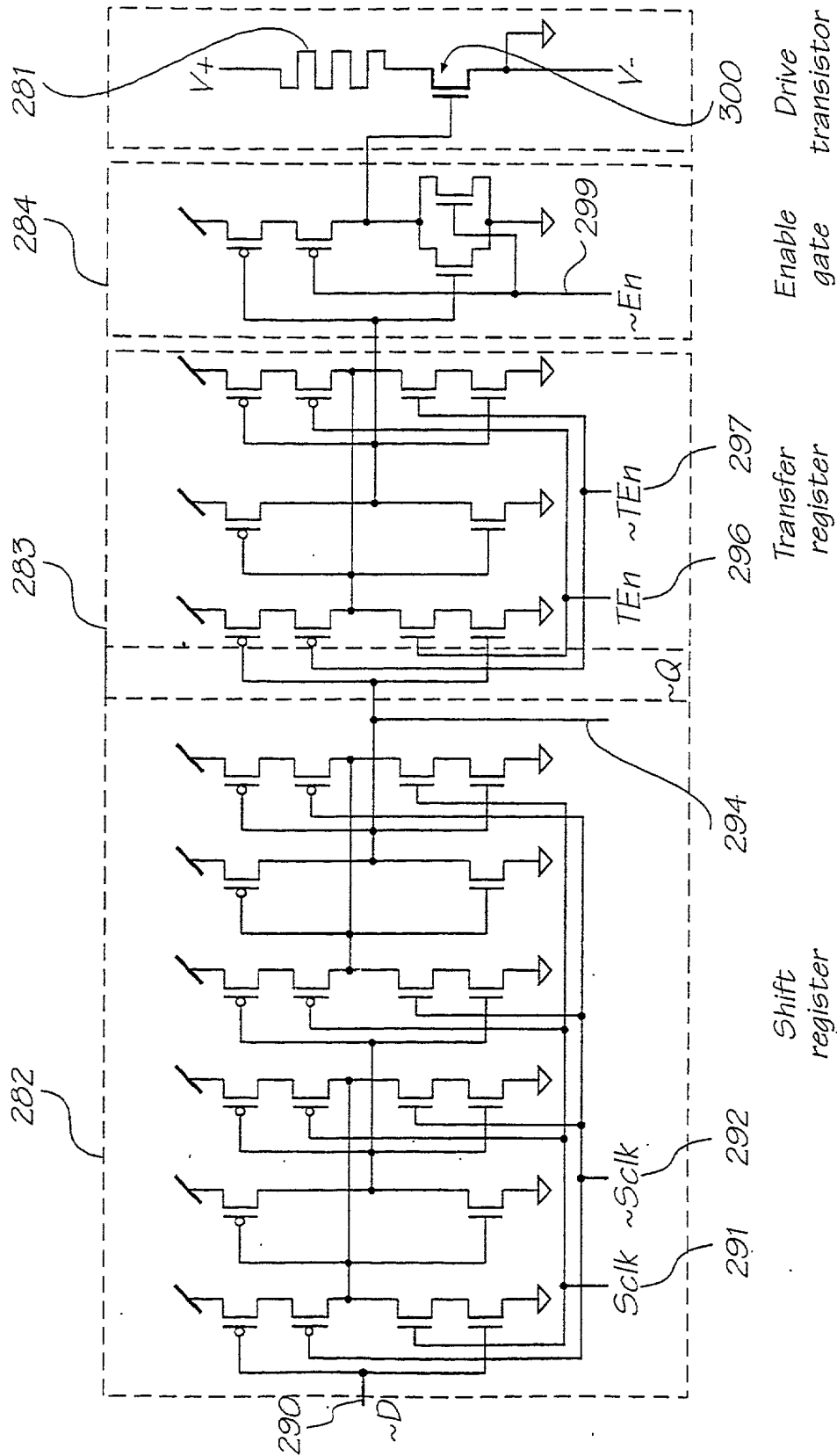


FIG. 77

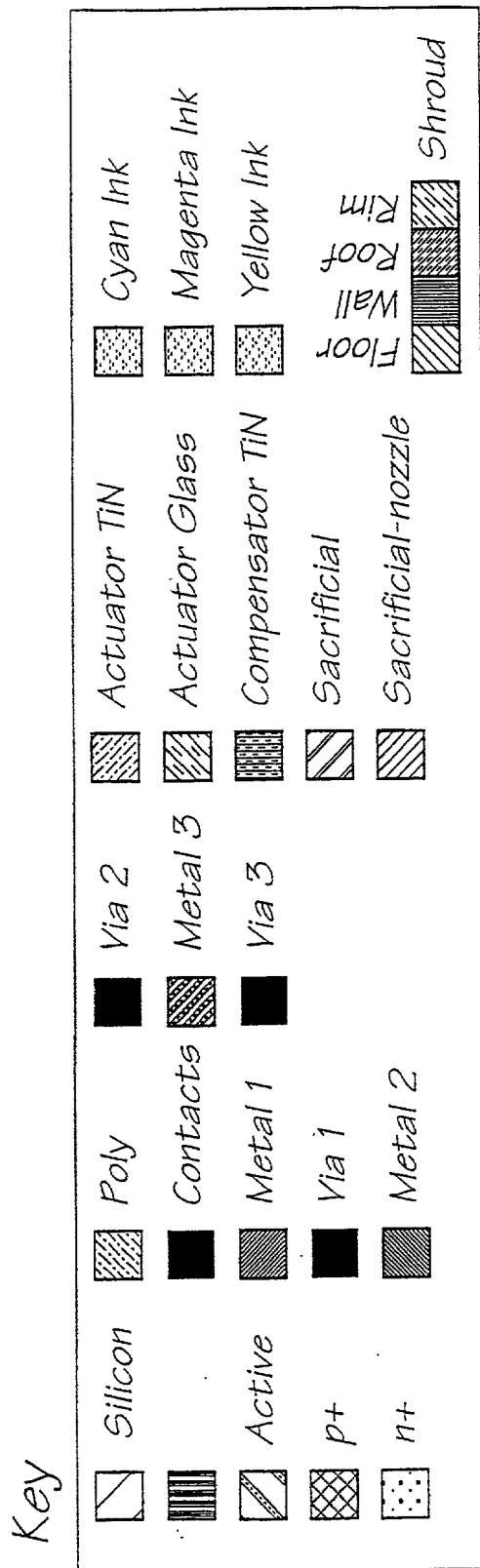


FIG. 78

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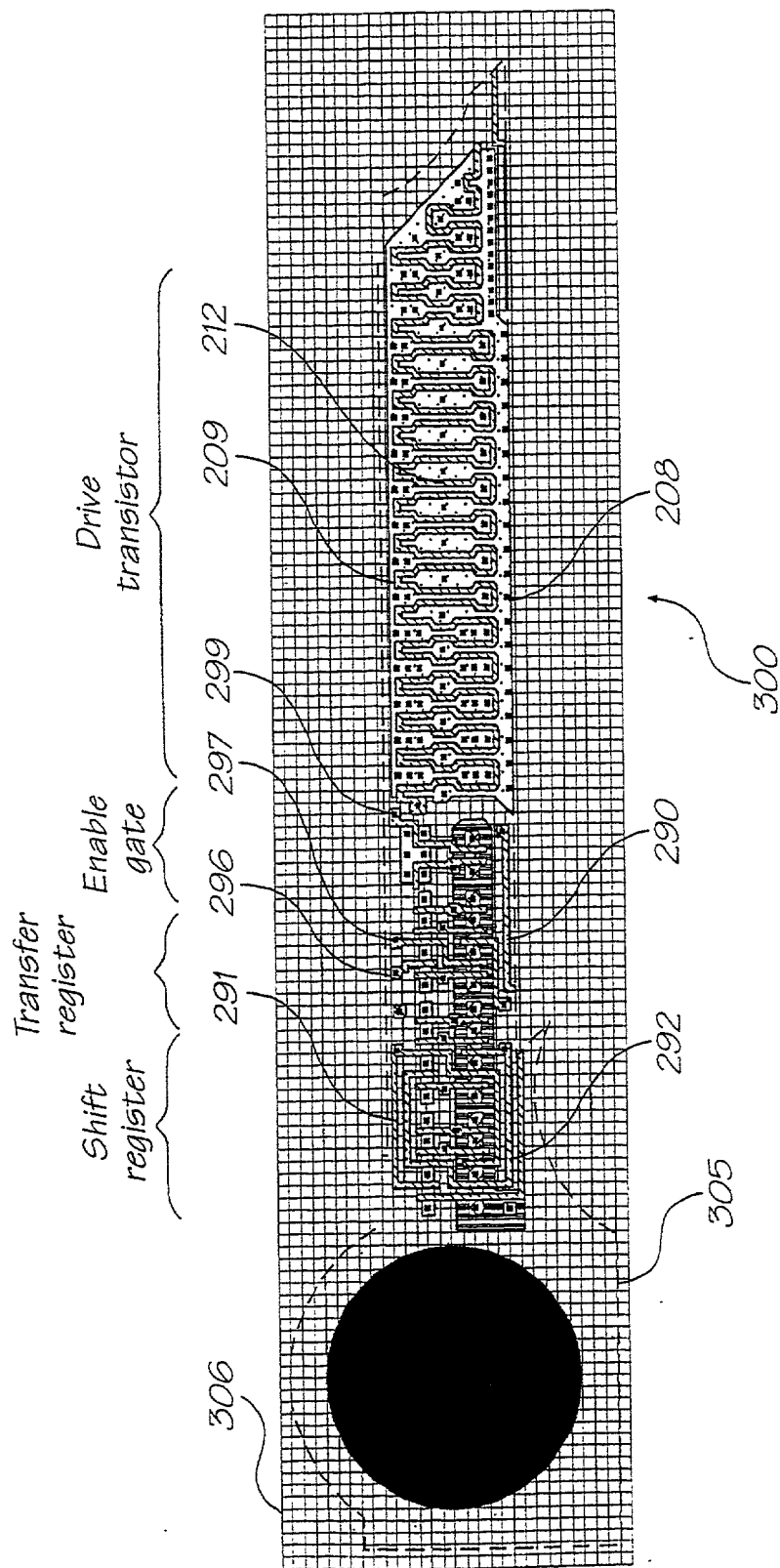


FIG. 79

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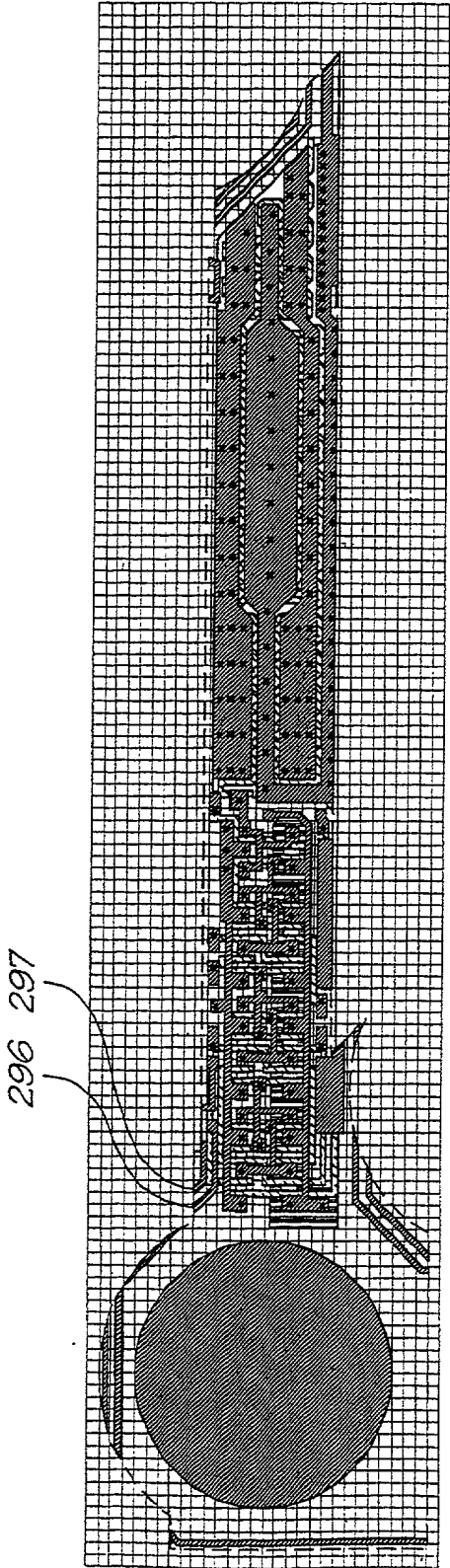


FIG. 80

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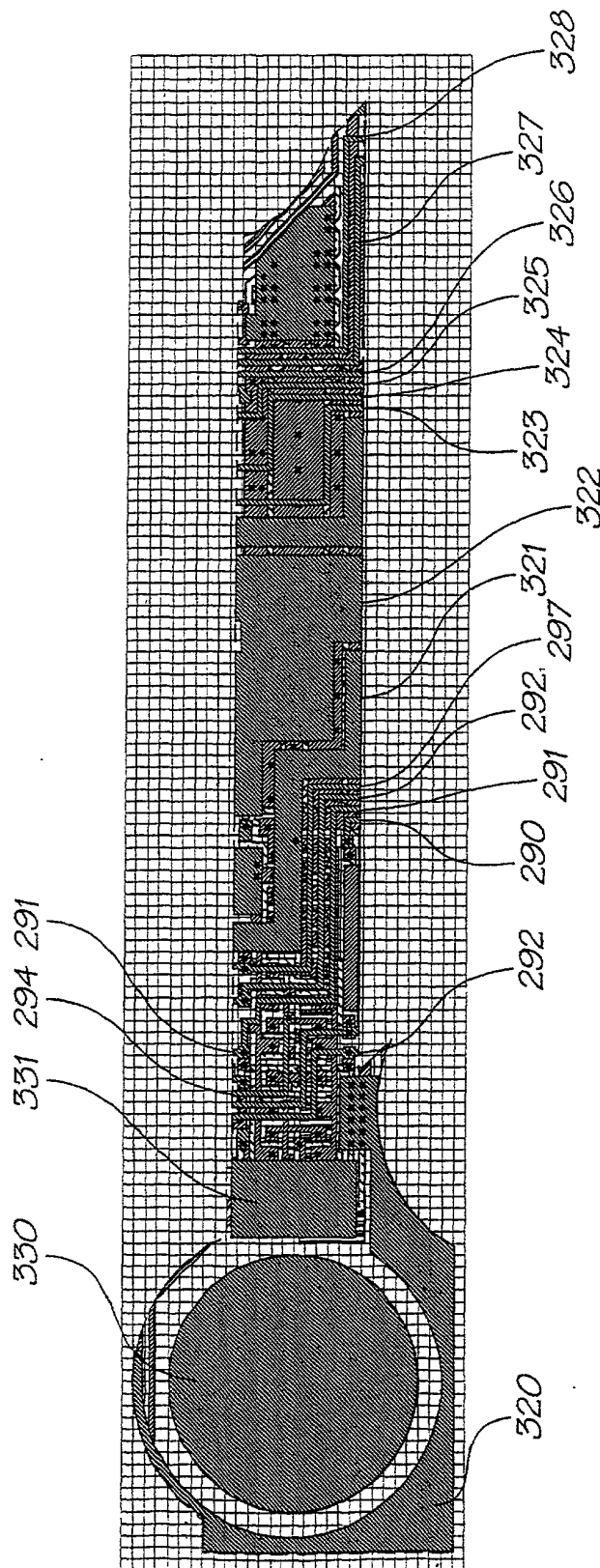


FIG. 81

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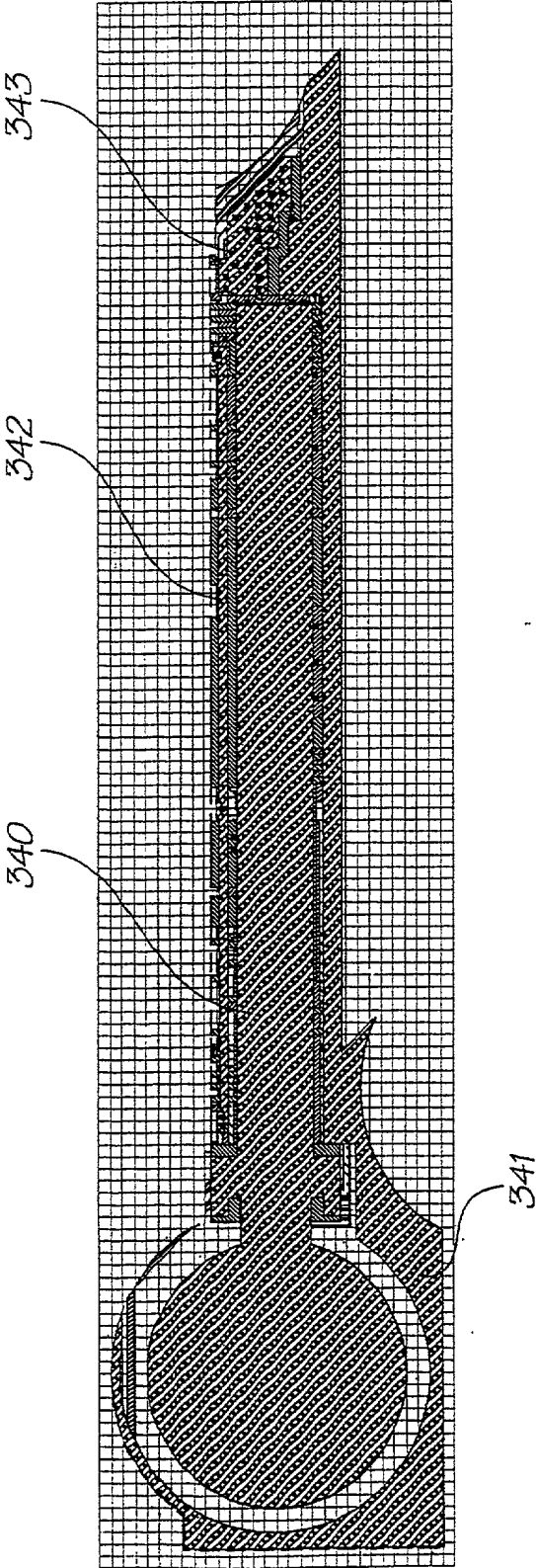


FIG. 82

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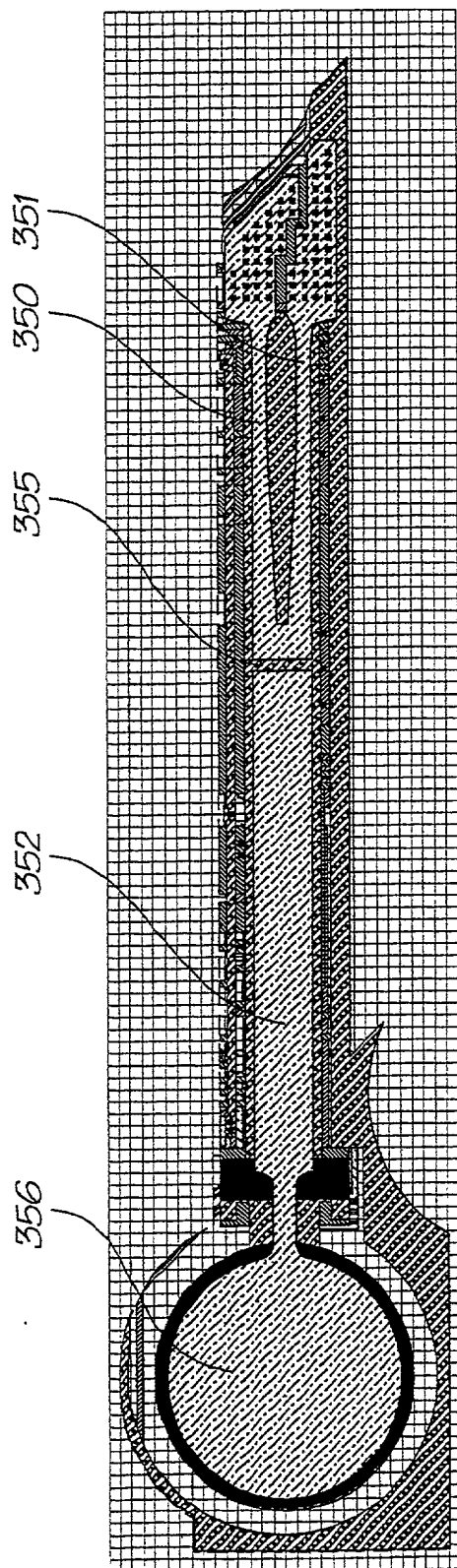


FIG. 83

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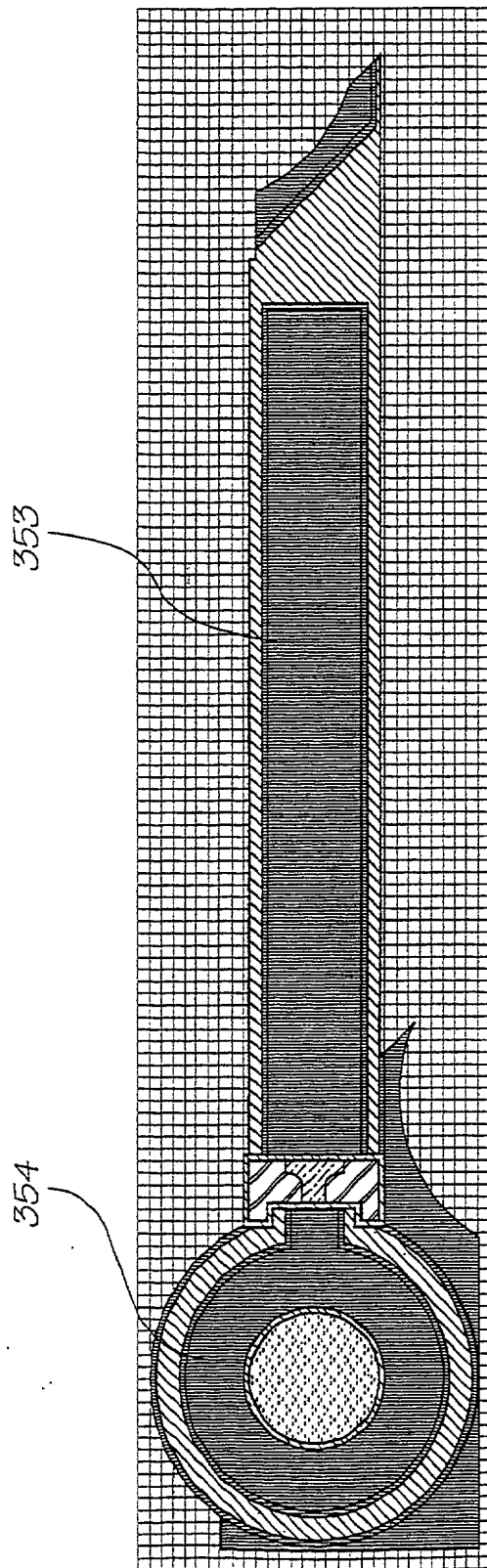


FIG. 84

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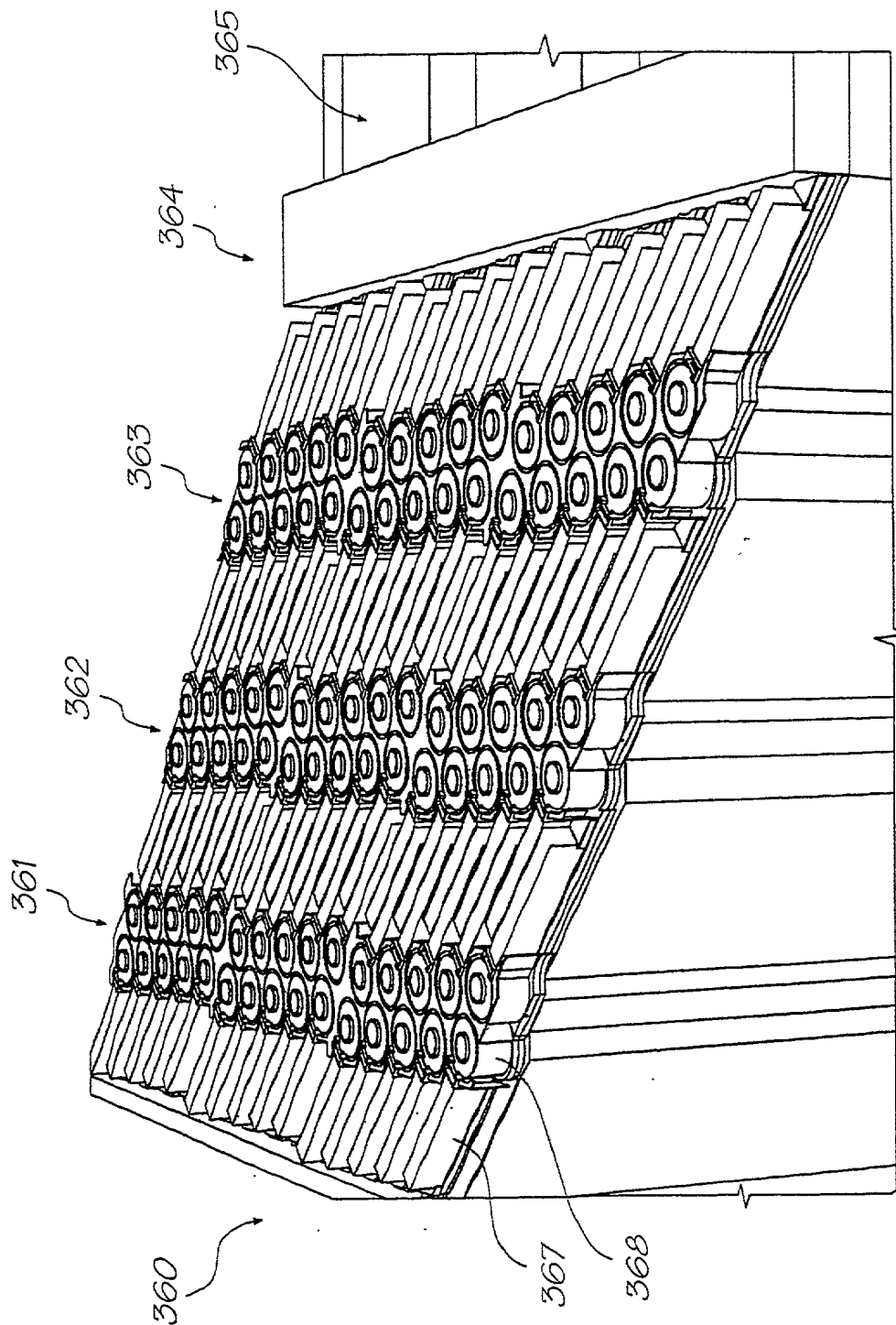


FIG. 85

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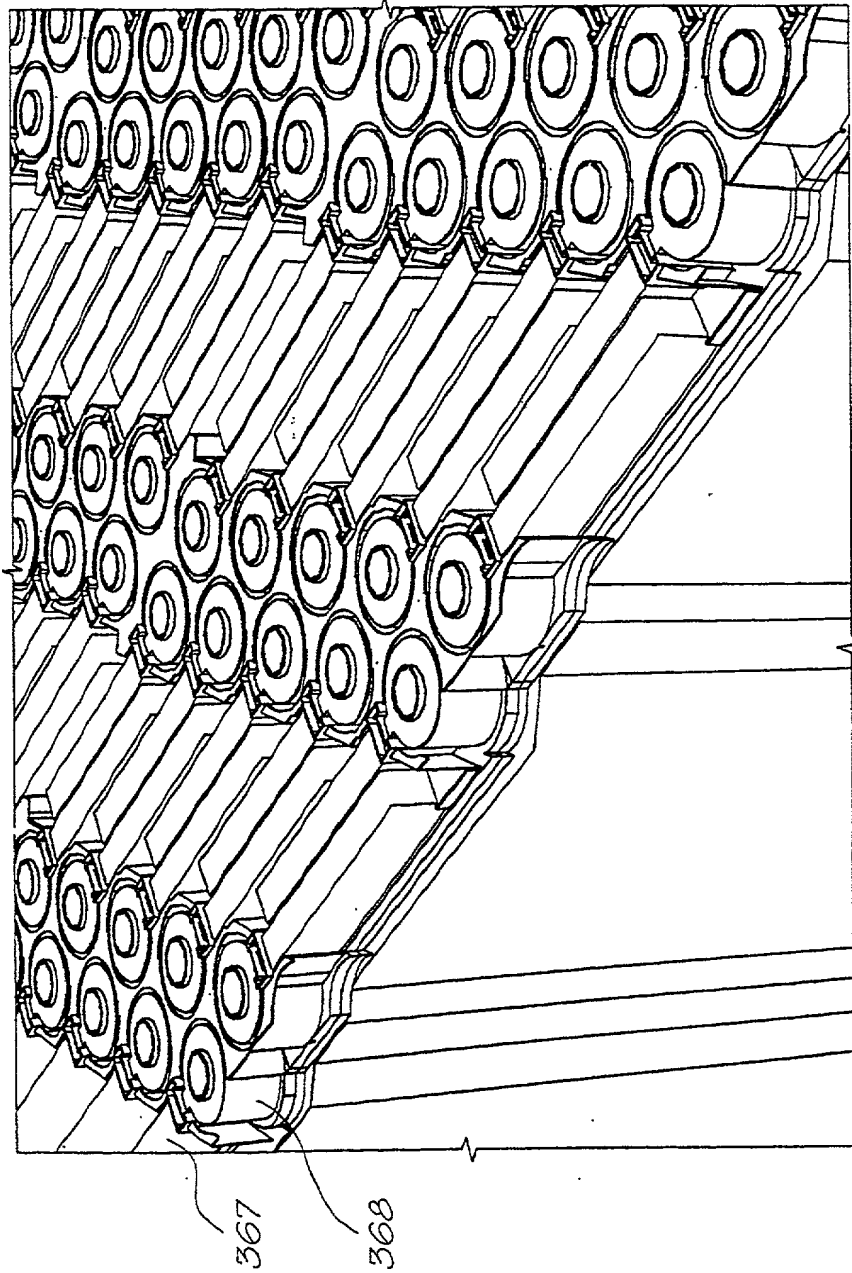


FIG. 86

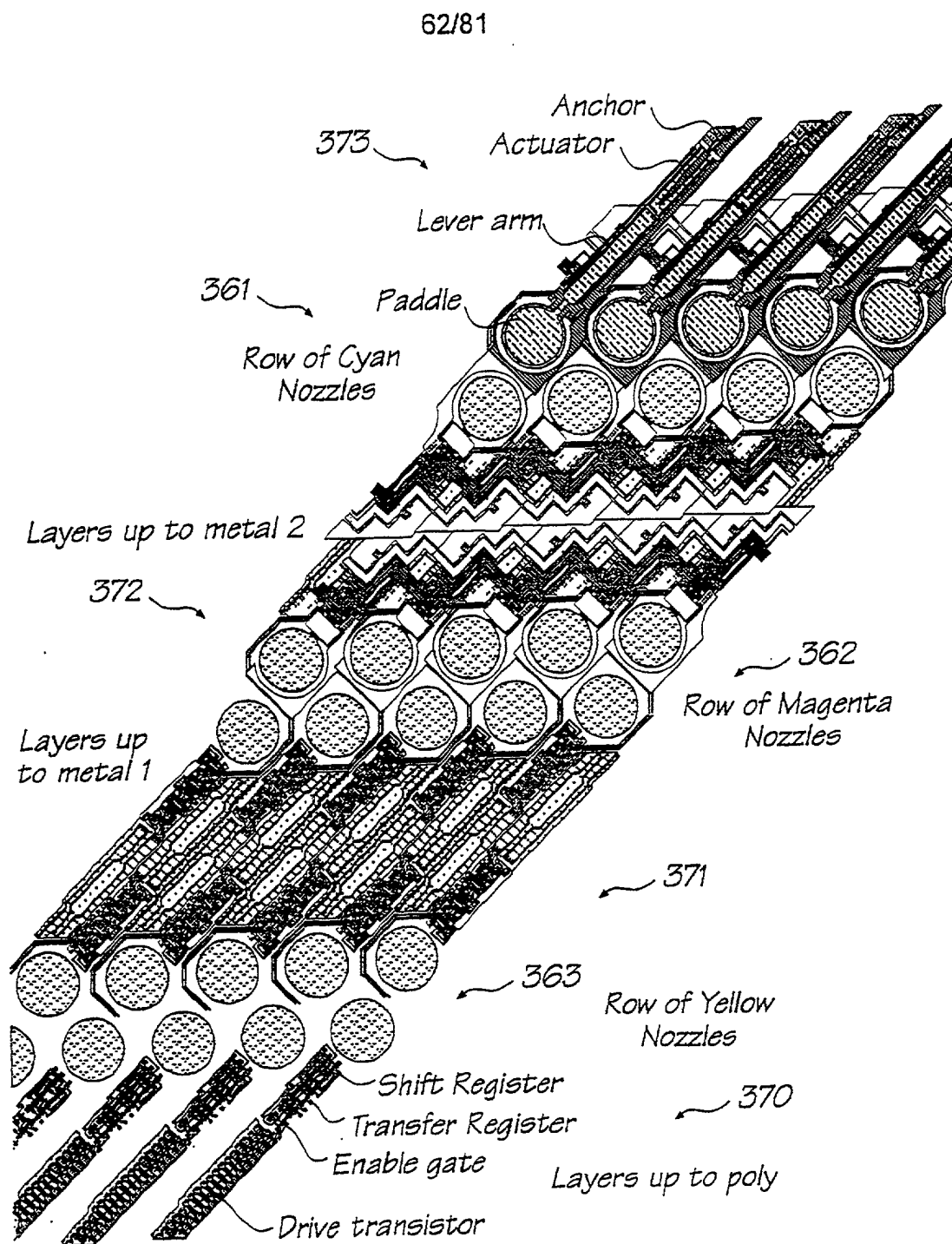


FIG. 87

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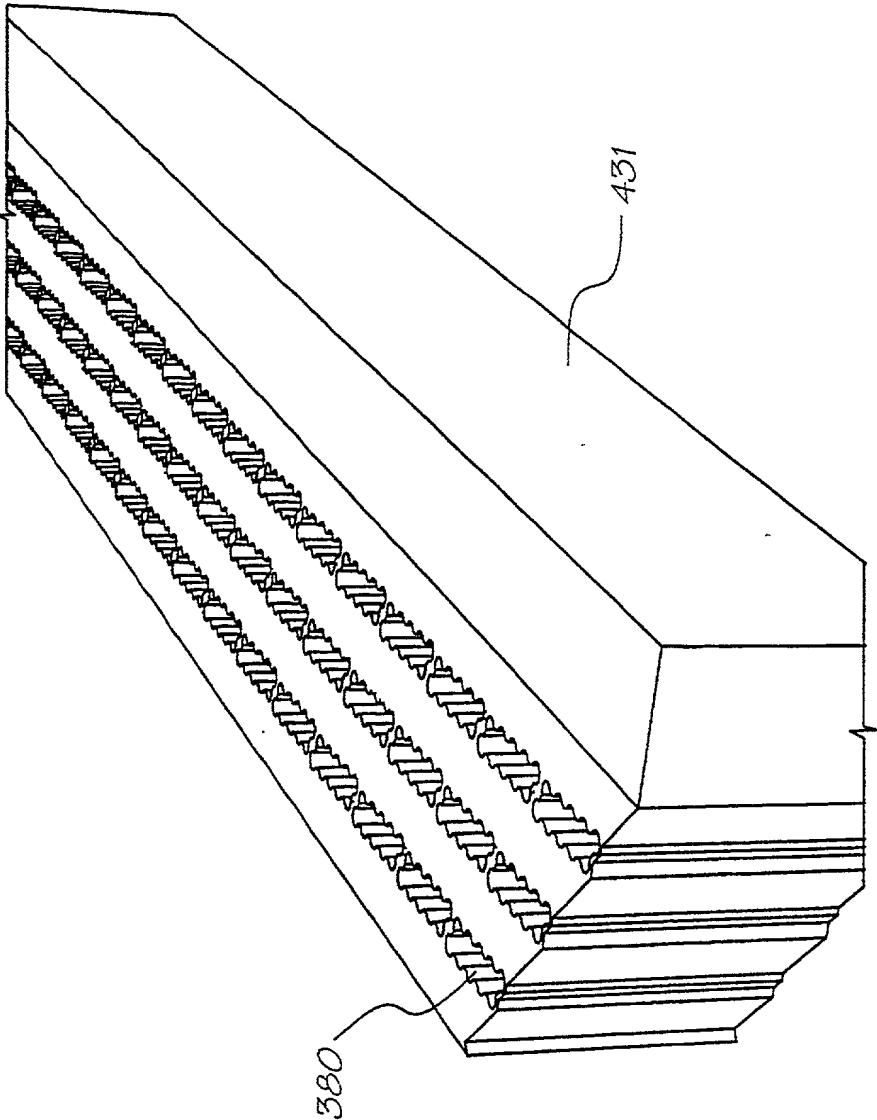


FIG. 88

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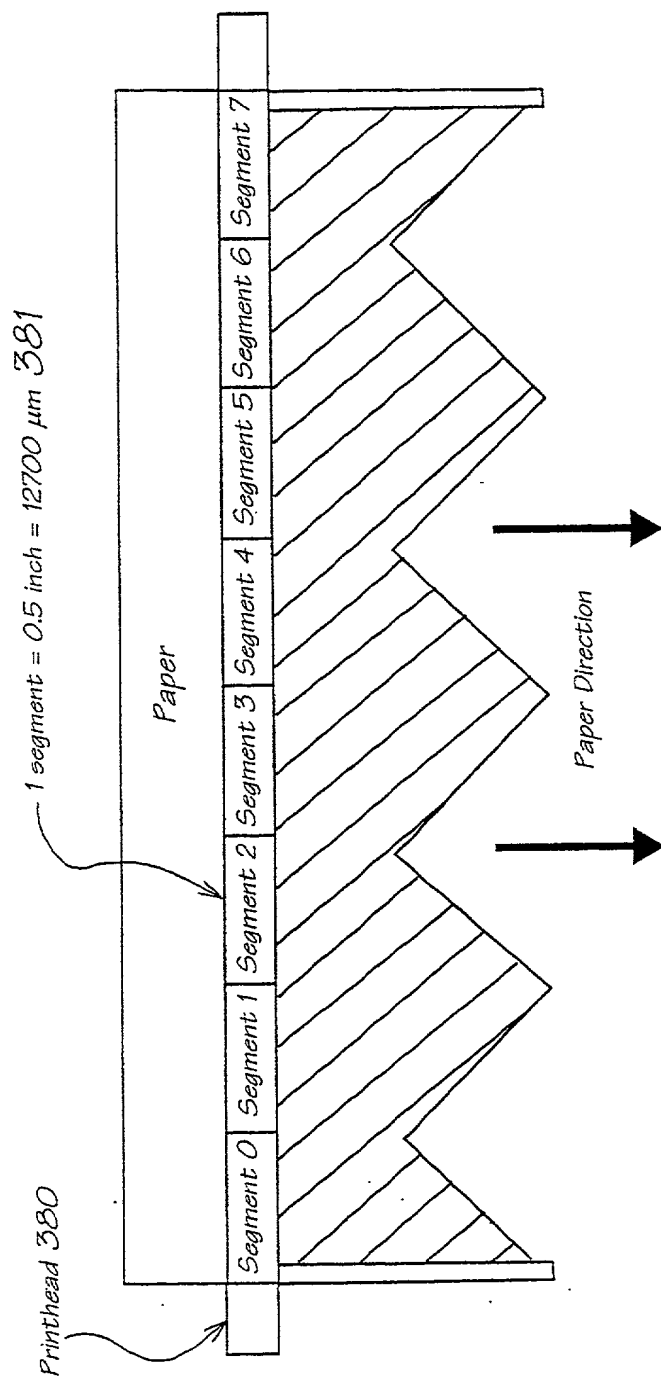
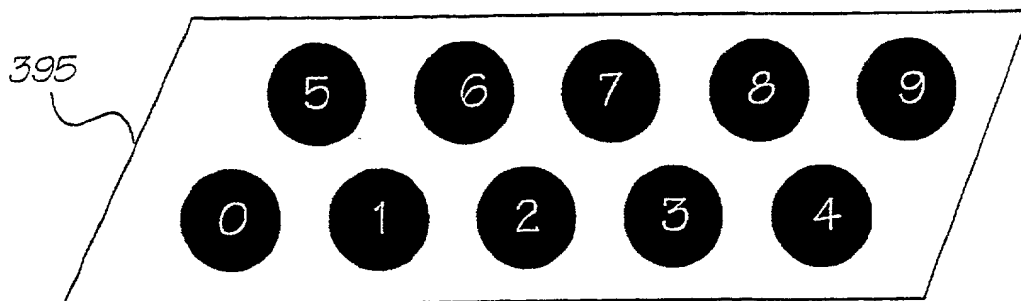


FIG. 89

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A single pod, numbered by firing order

Fig. 90

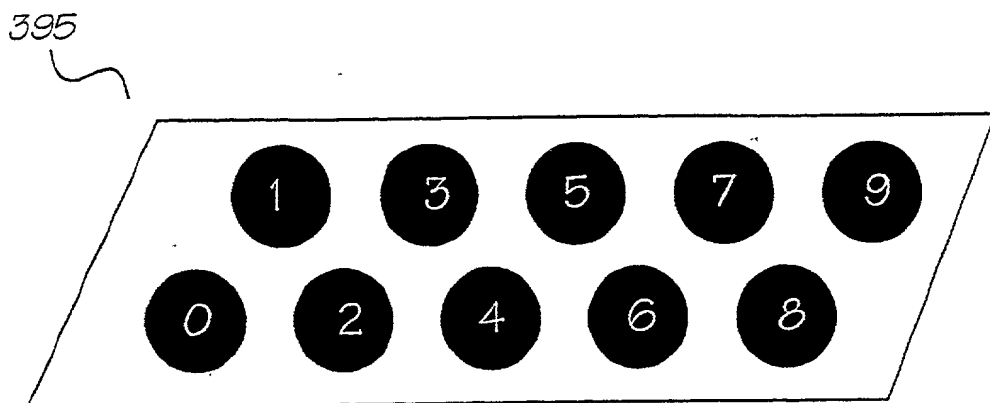


Fig. 91

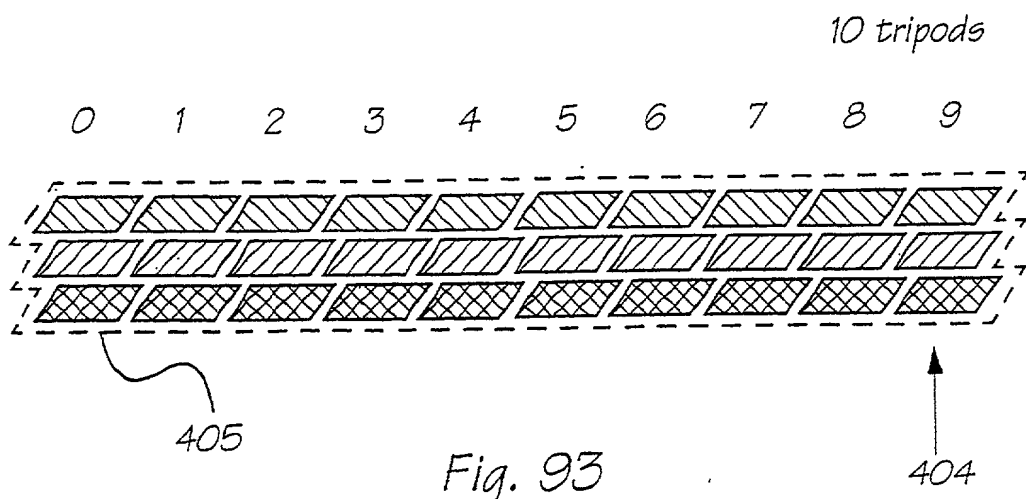


Fig. 93

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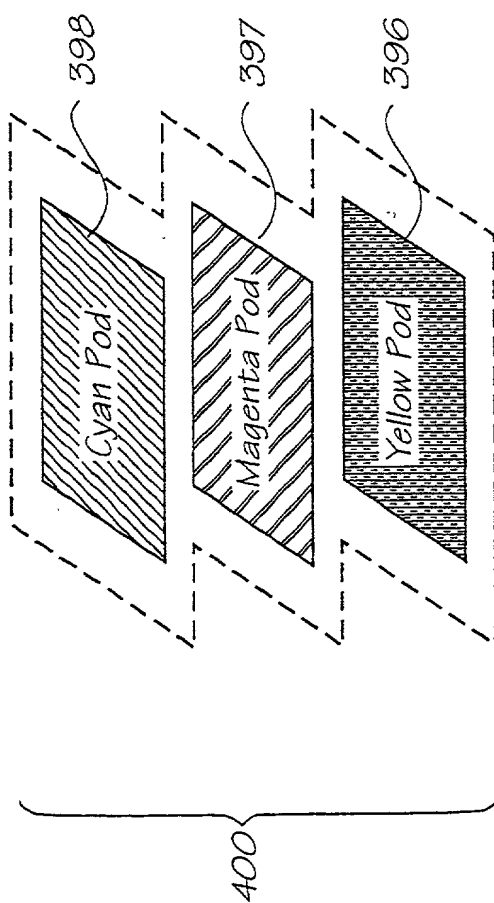


FIG. 92

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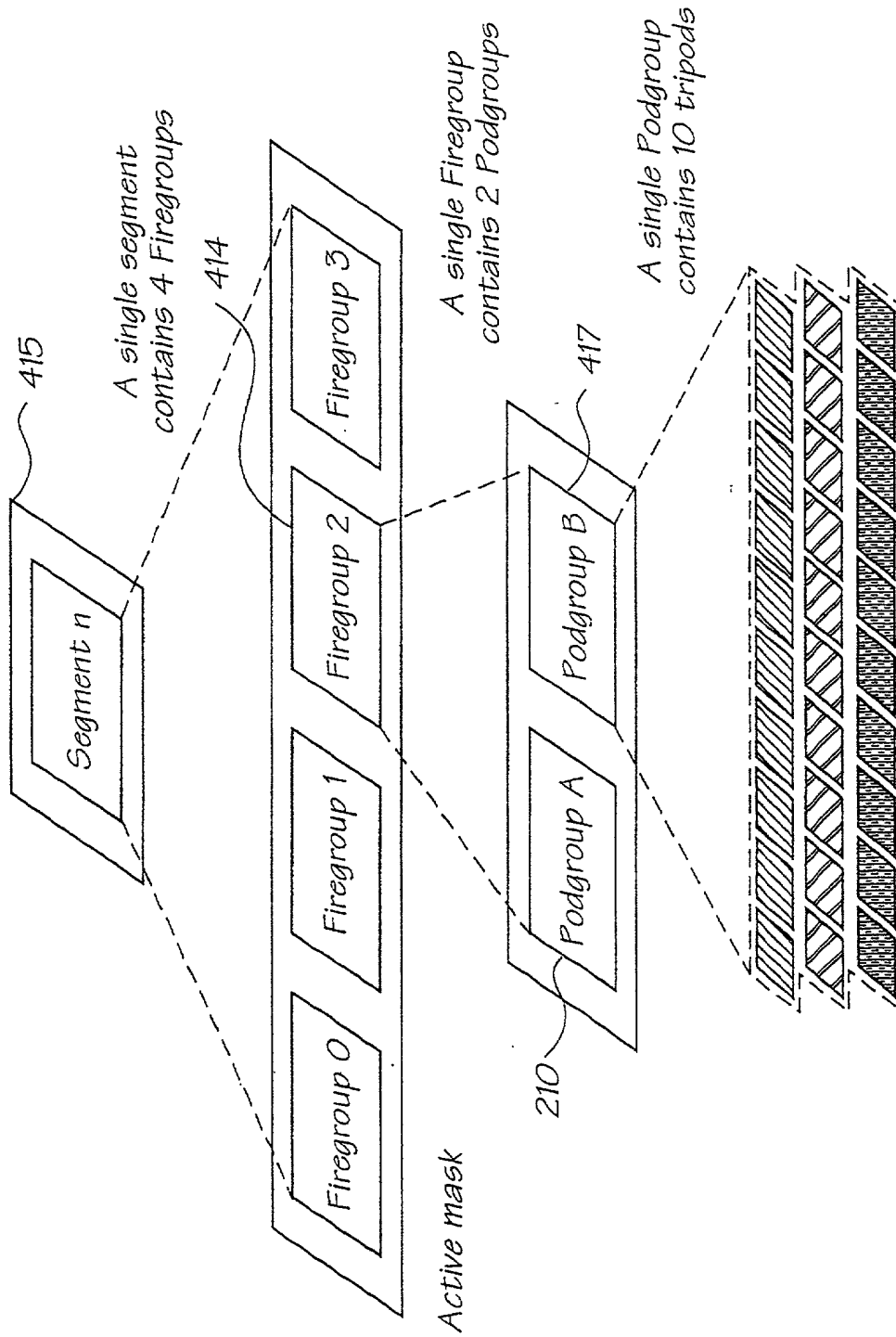


FIG. 94

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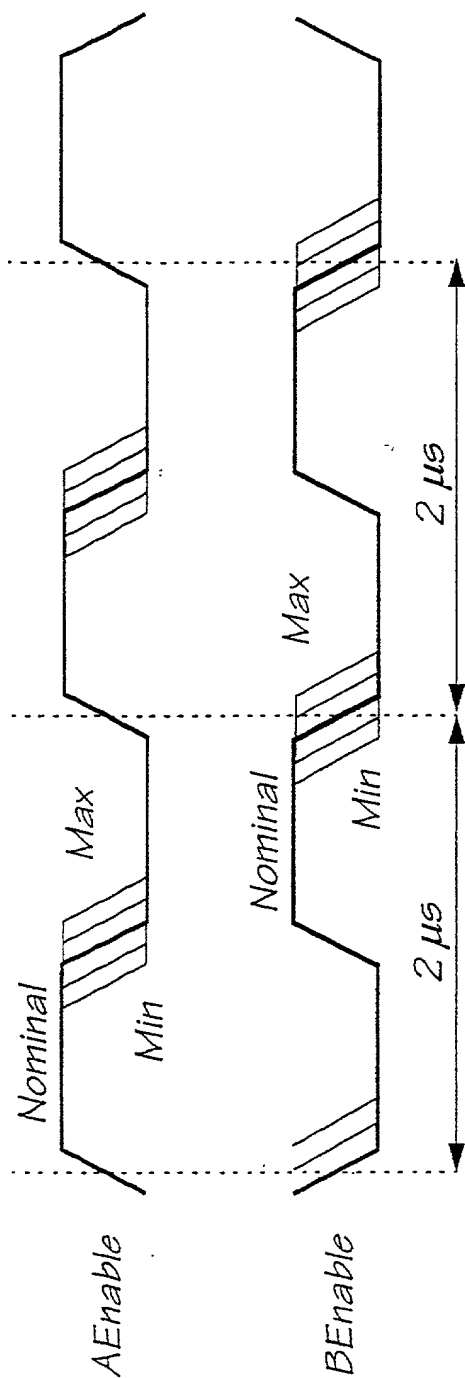


FIG. 95

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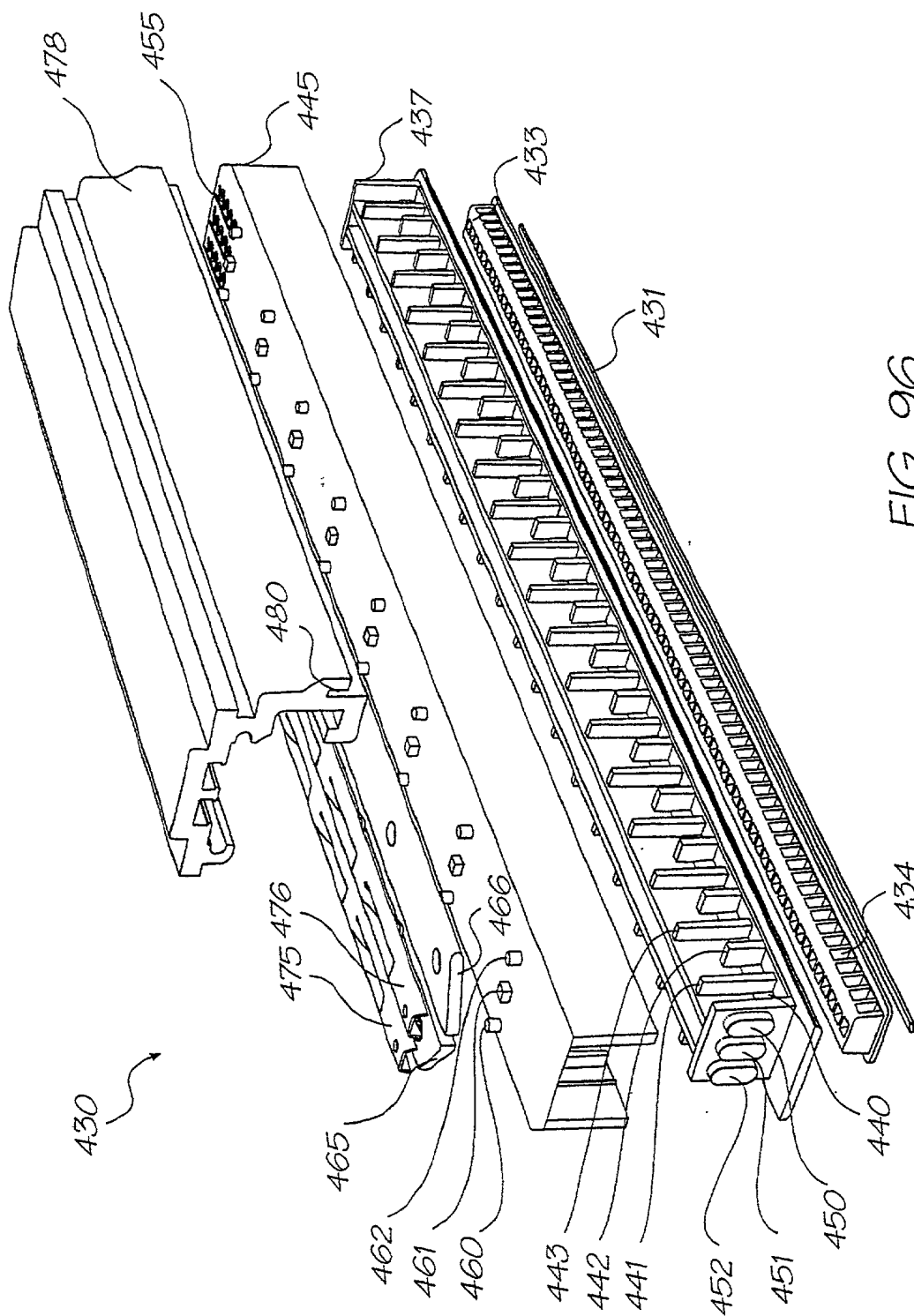


FIG. 96

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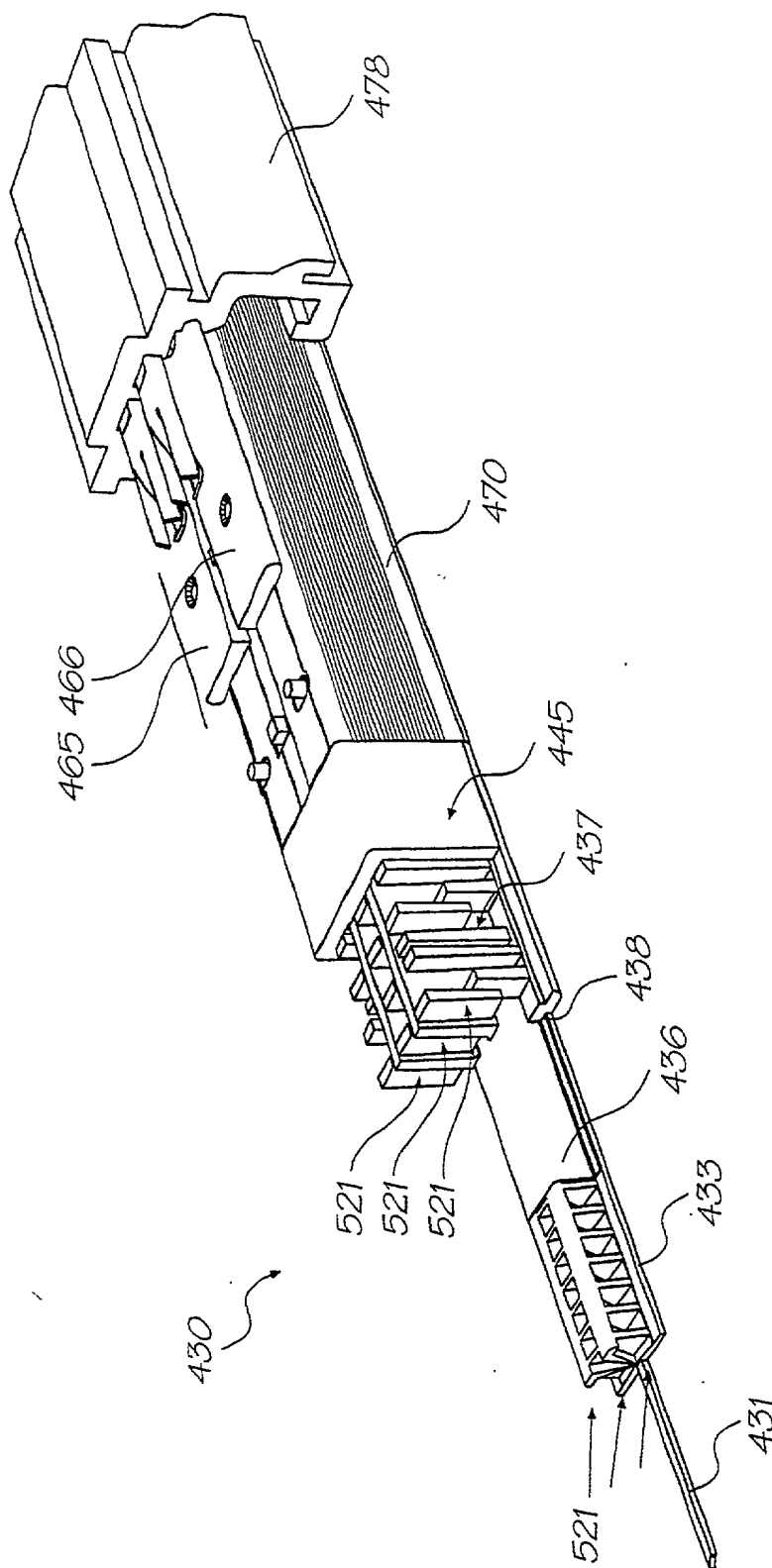


FIG. 97

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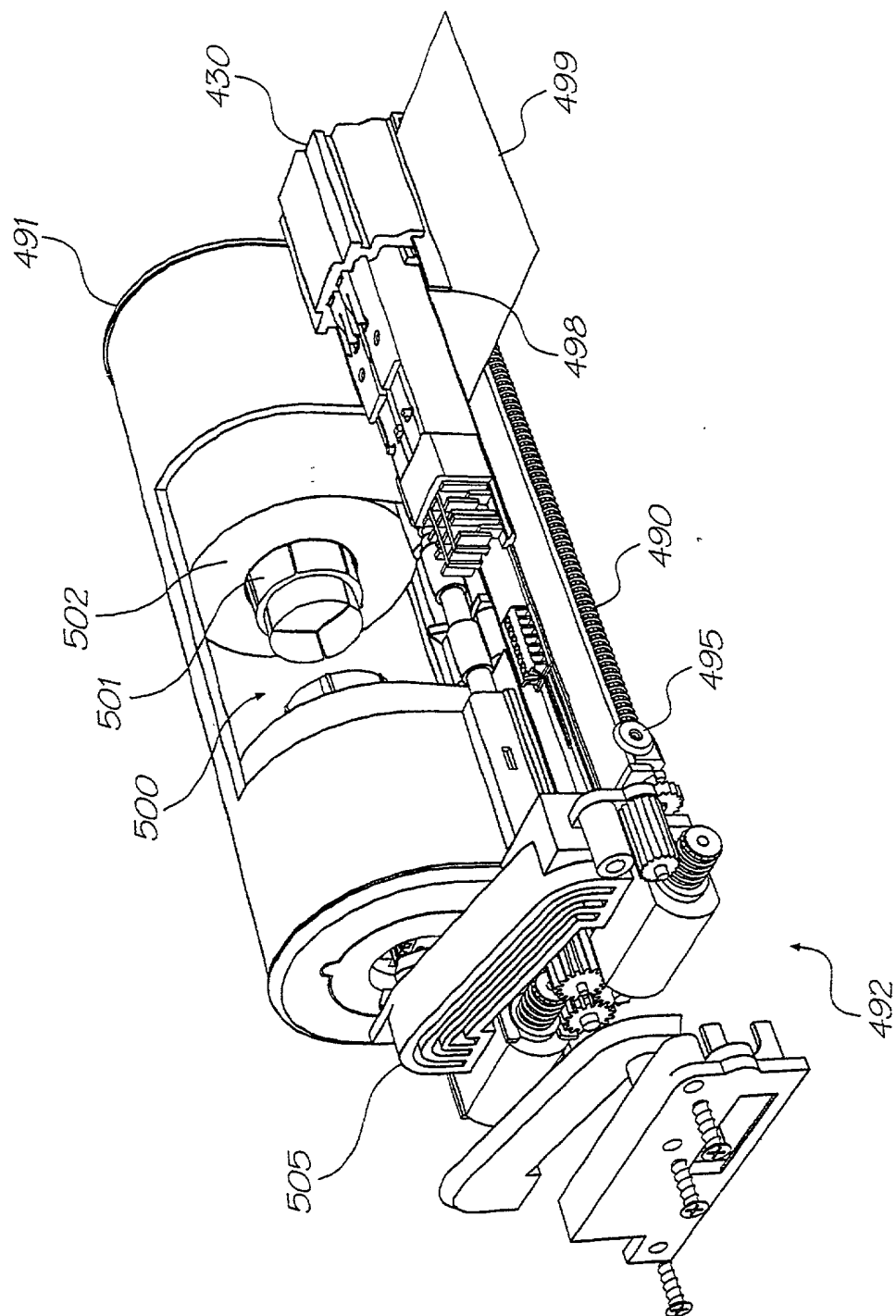


FIG. 98

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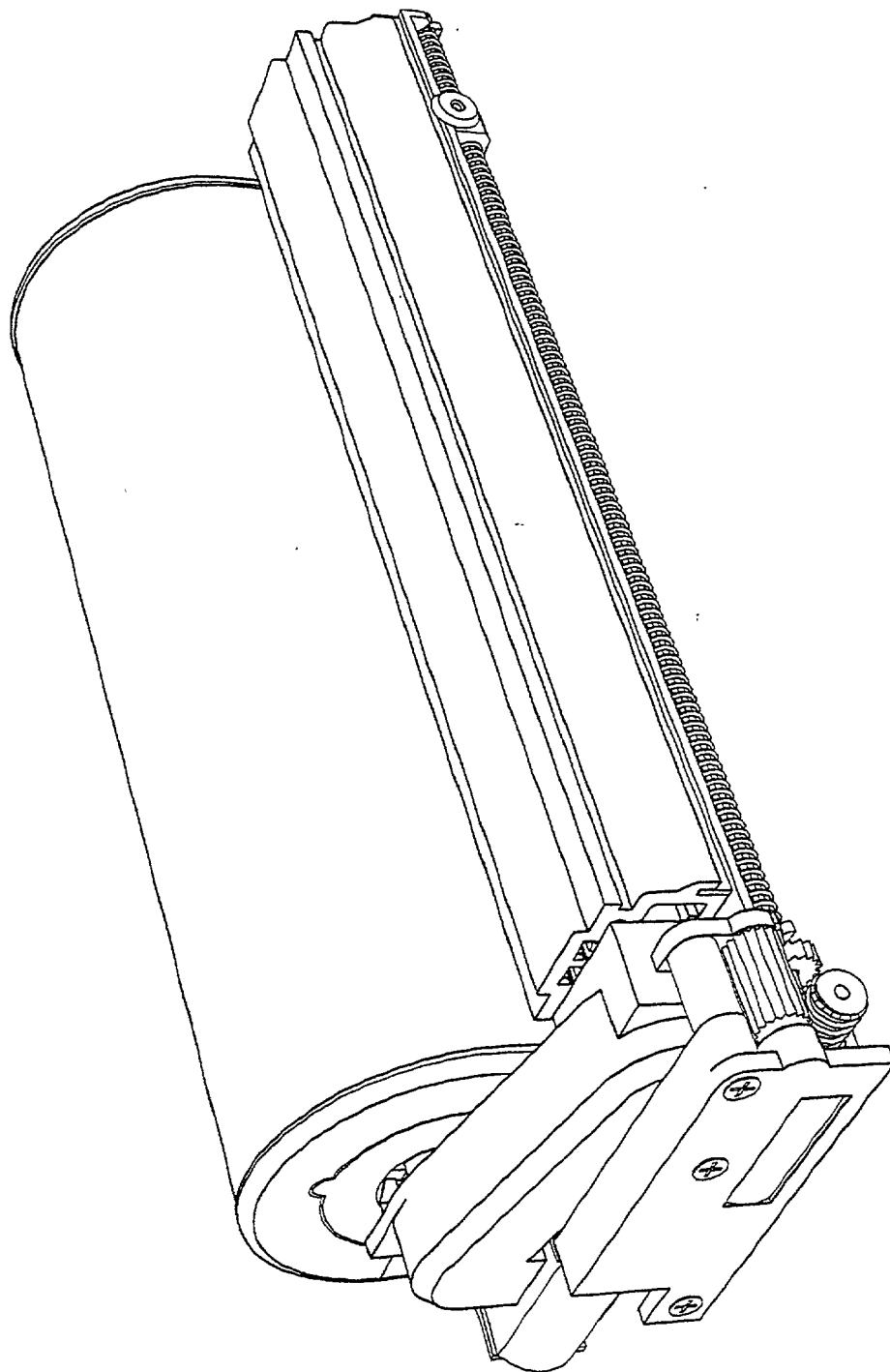


FIG. 99

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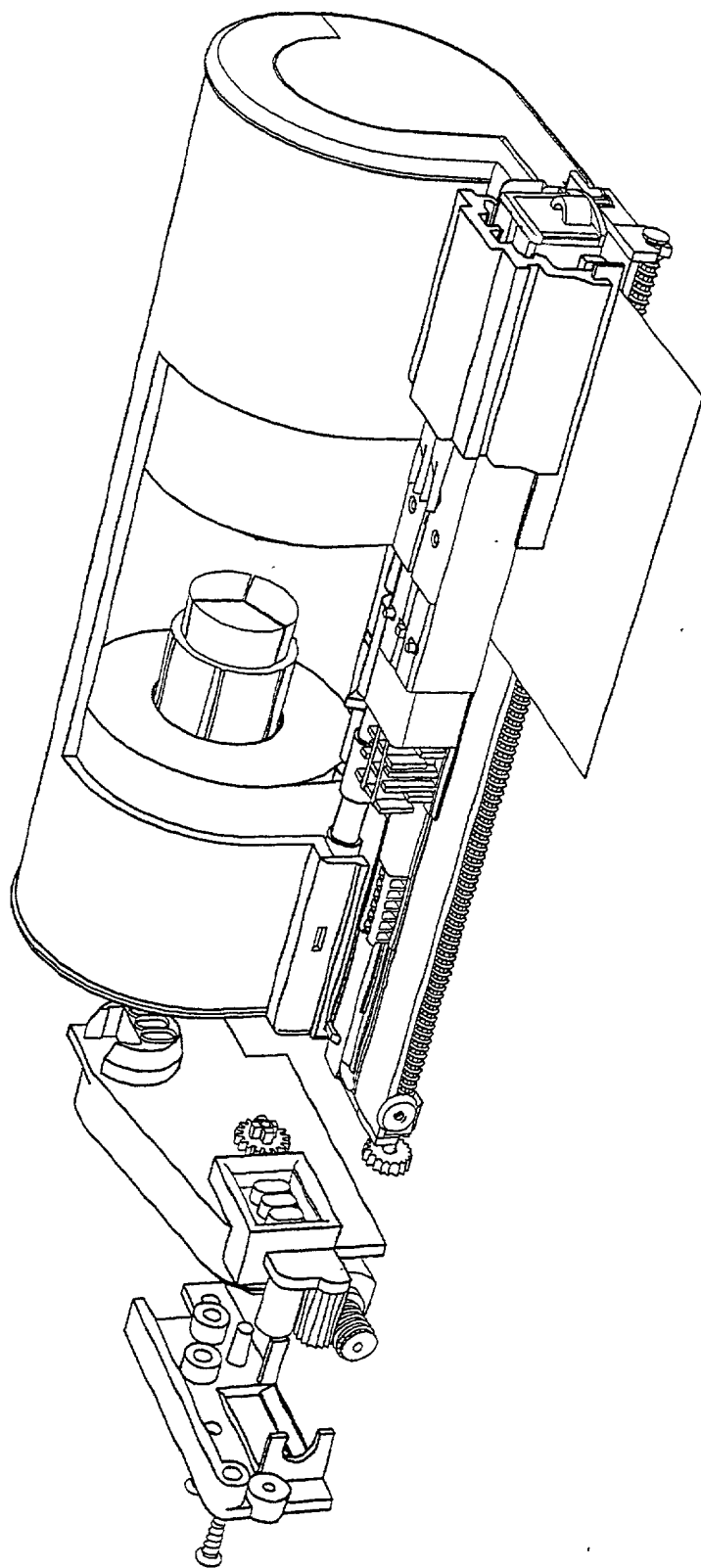


FIG. 100

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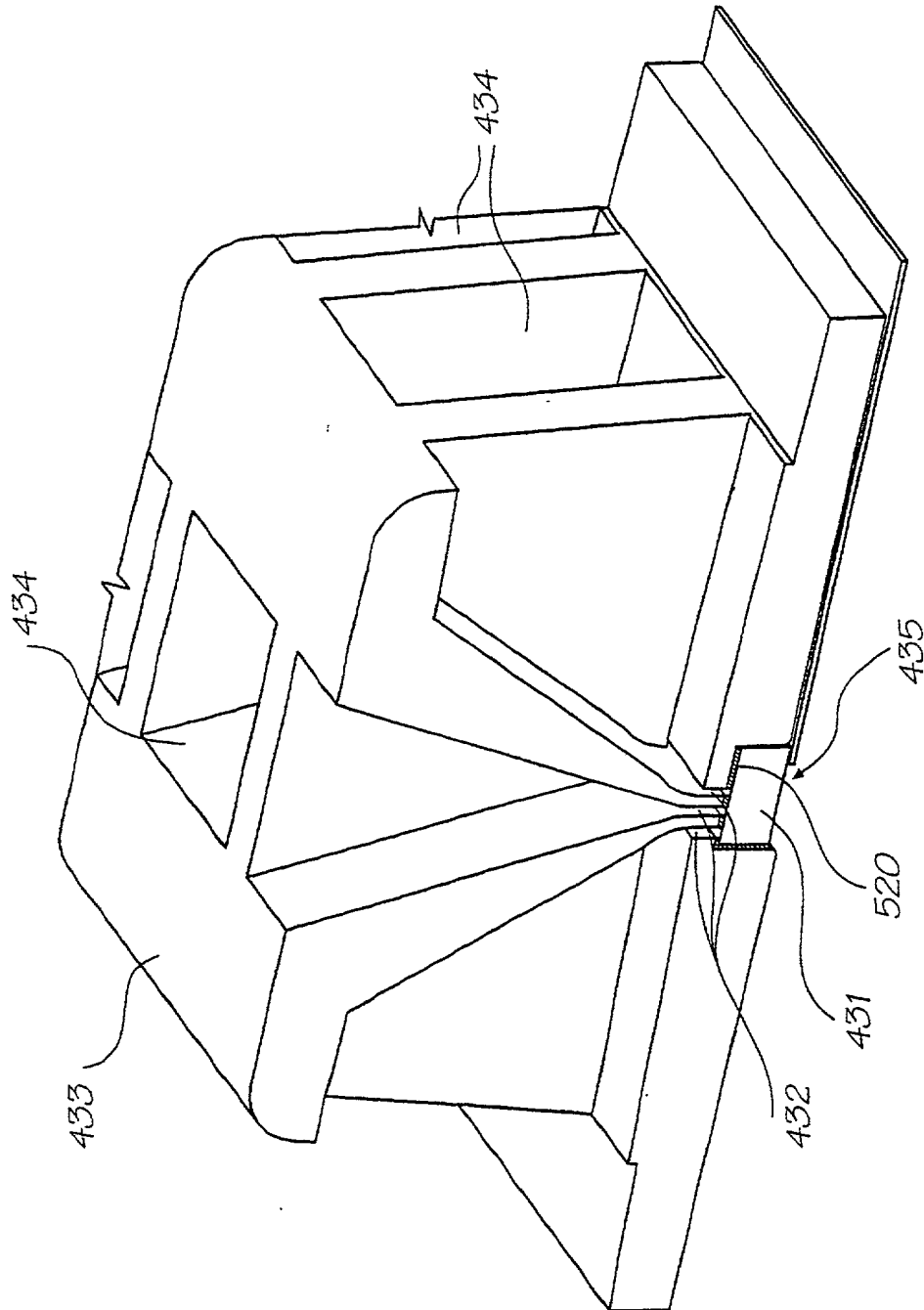


FIG. 101

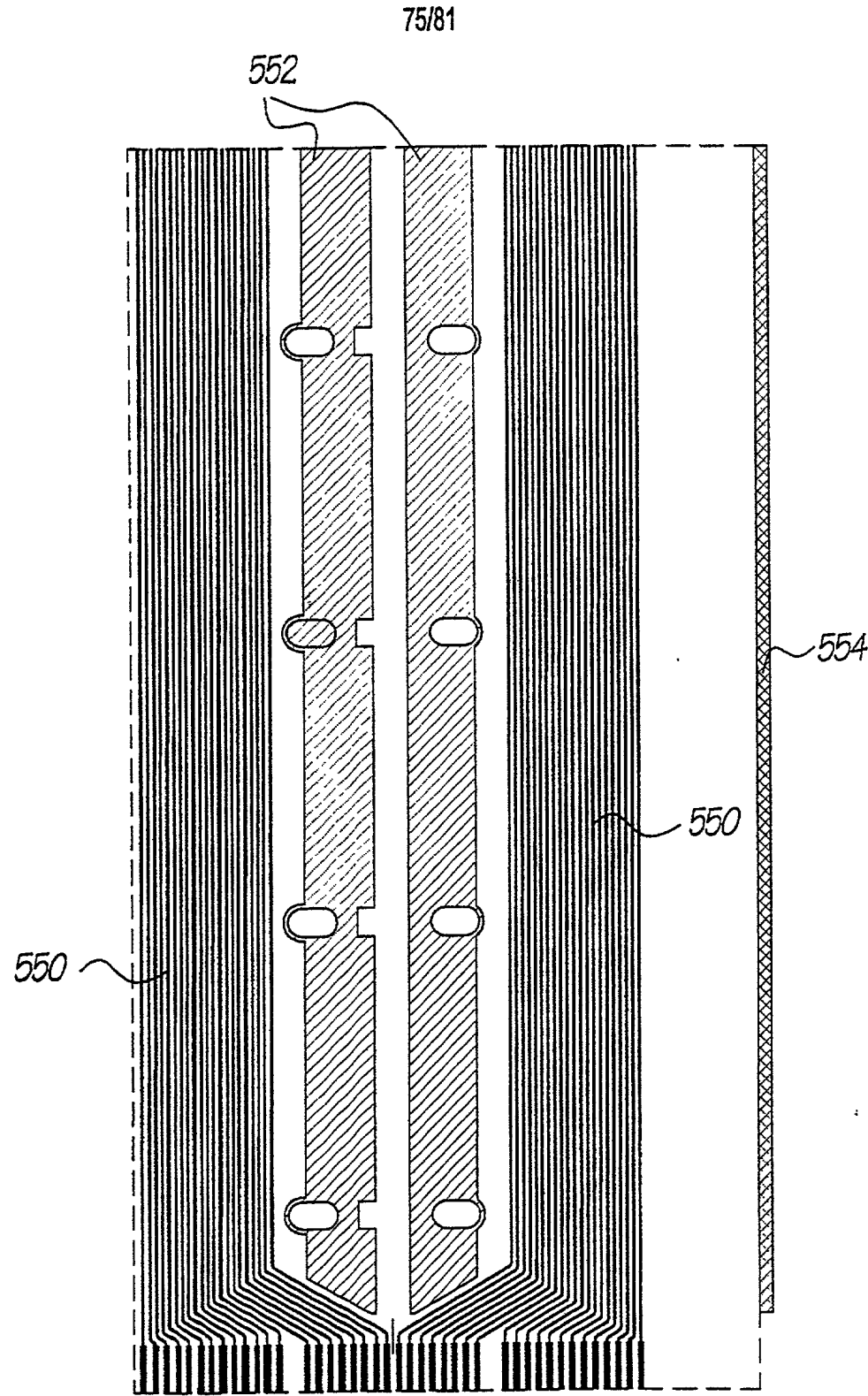


FIG. 102

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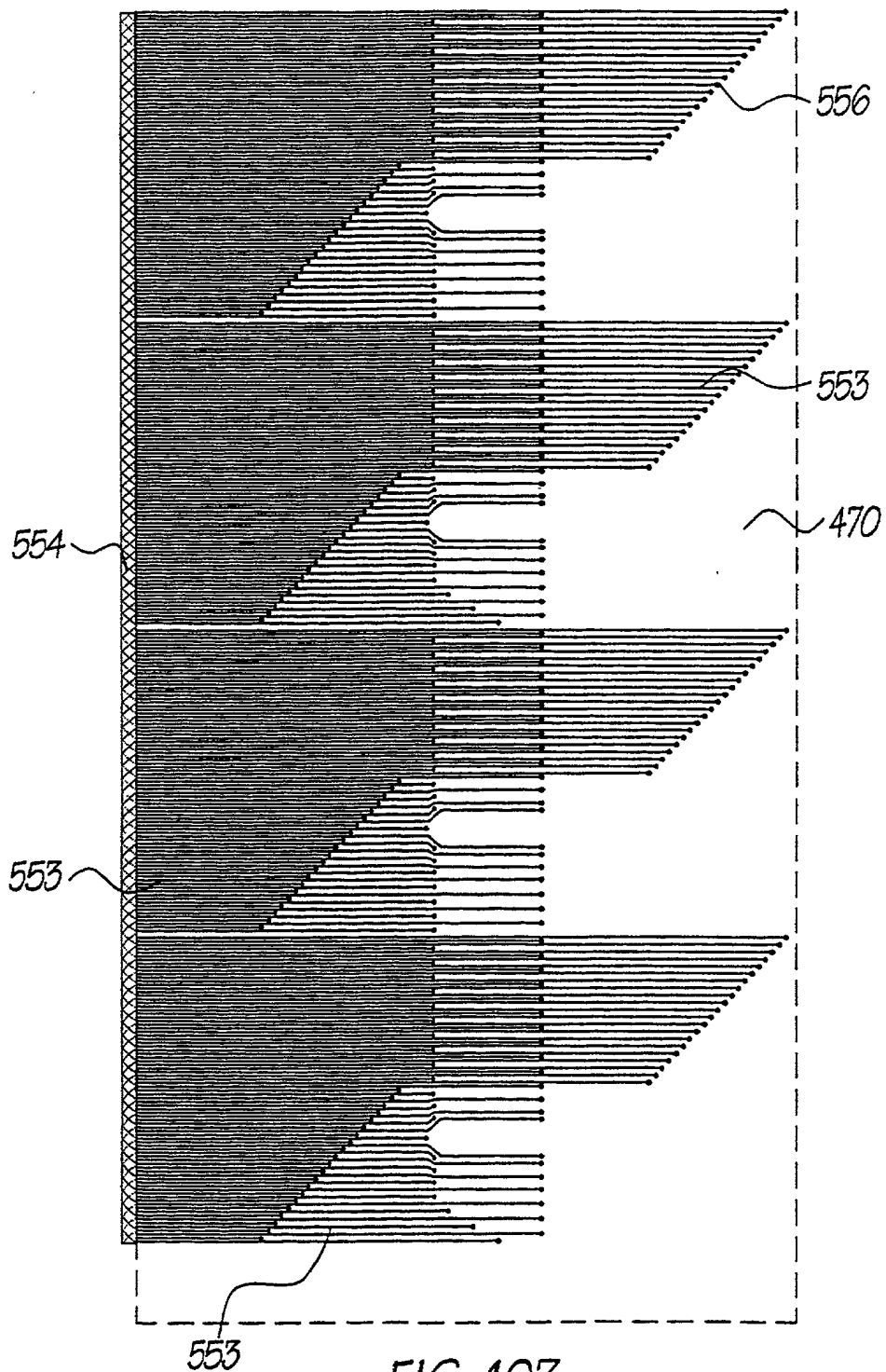


FIG. 103

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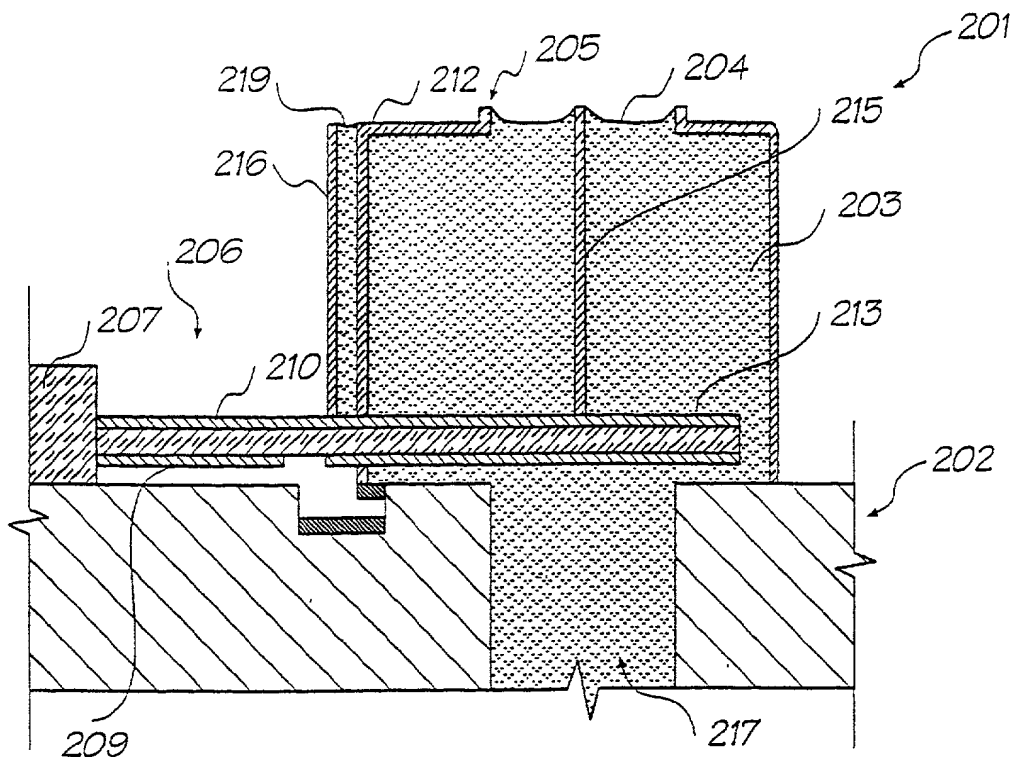


FIG. 104

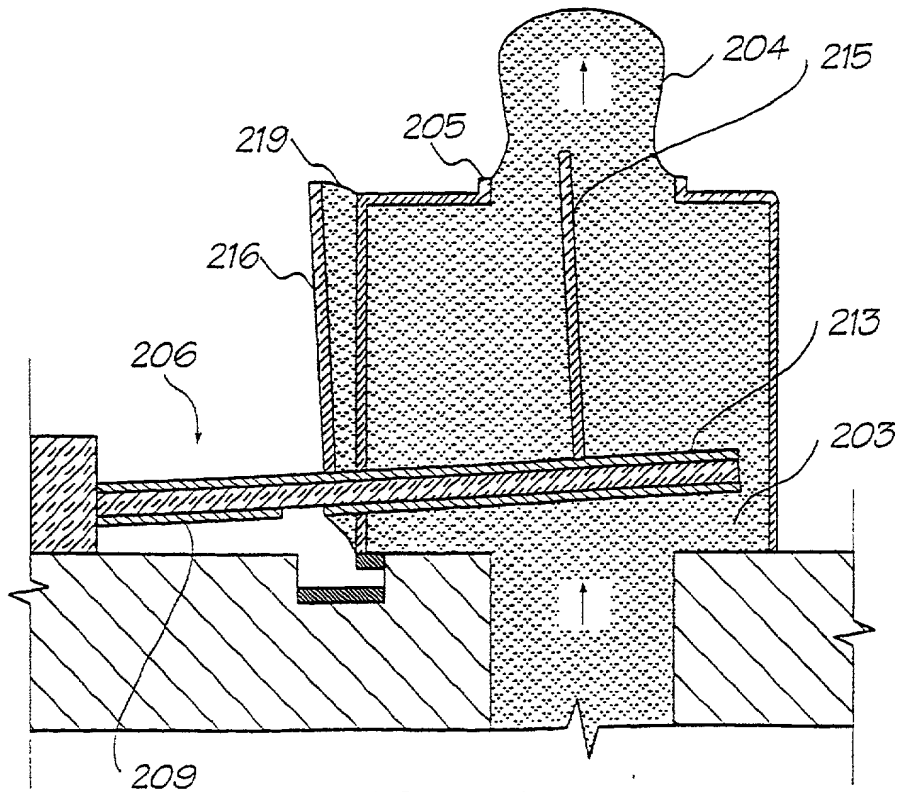
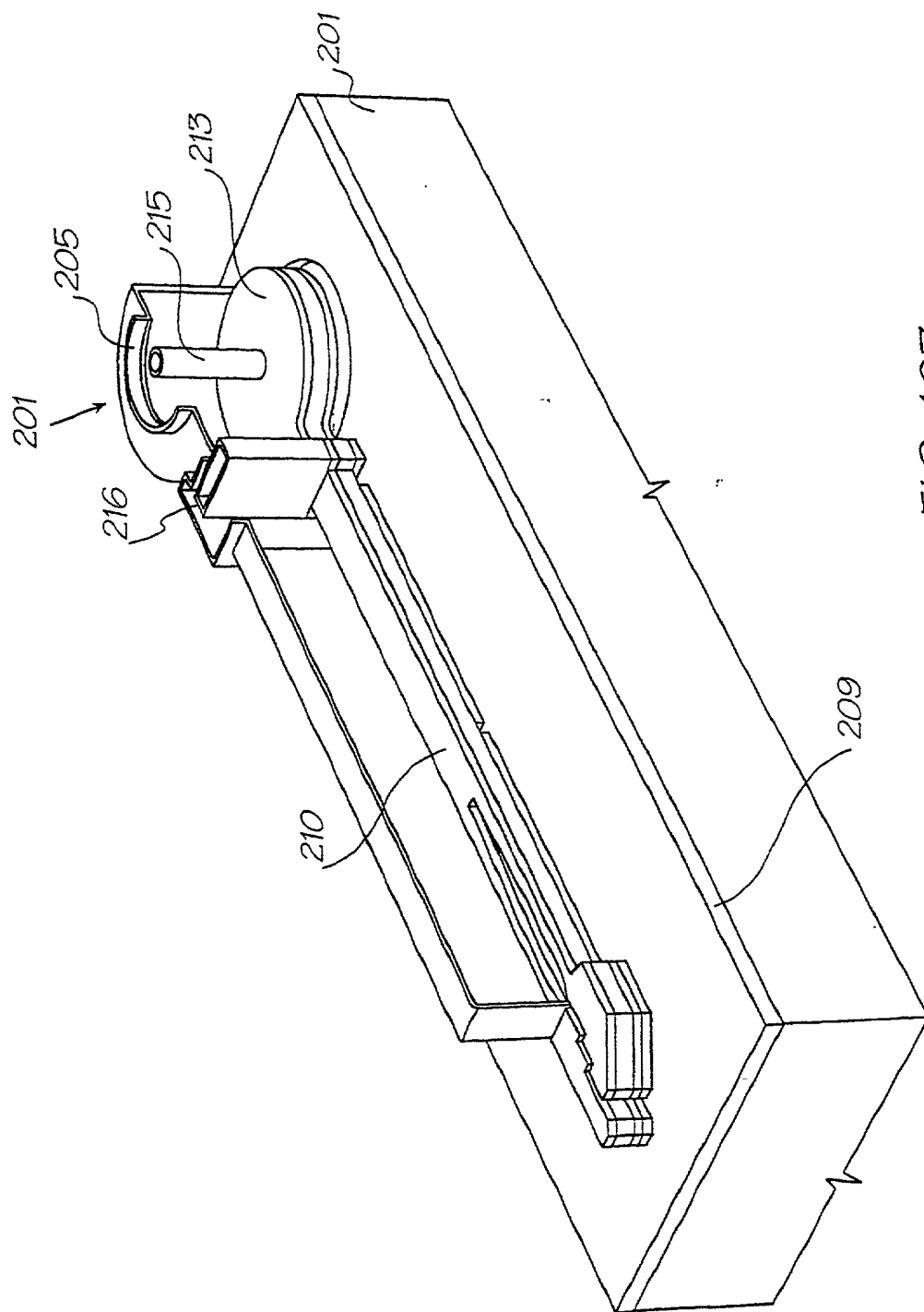


FIG. 105

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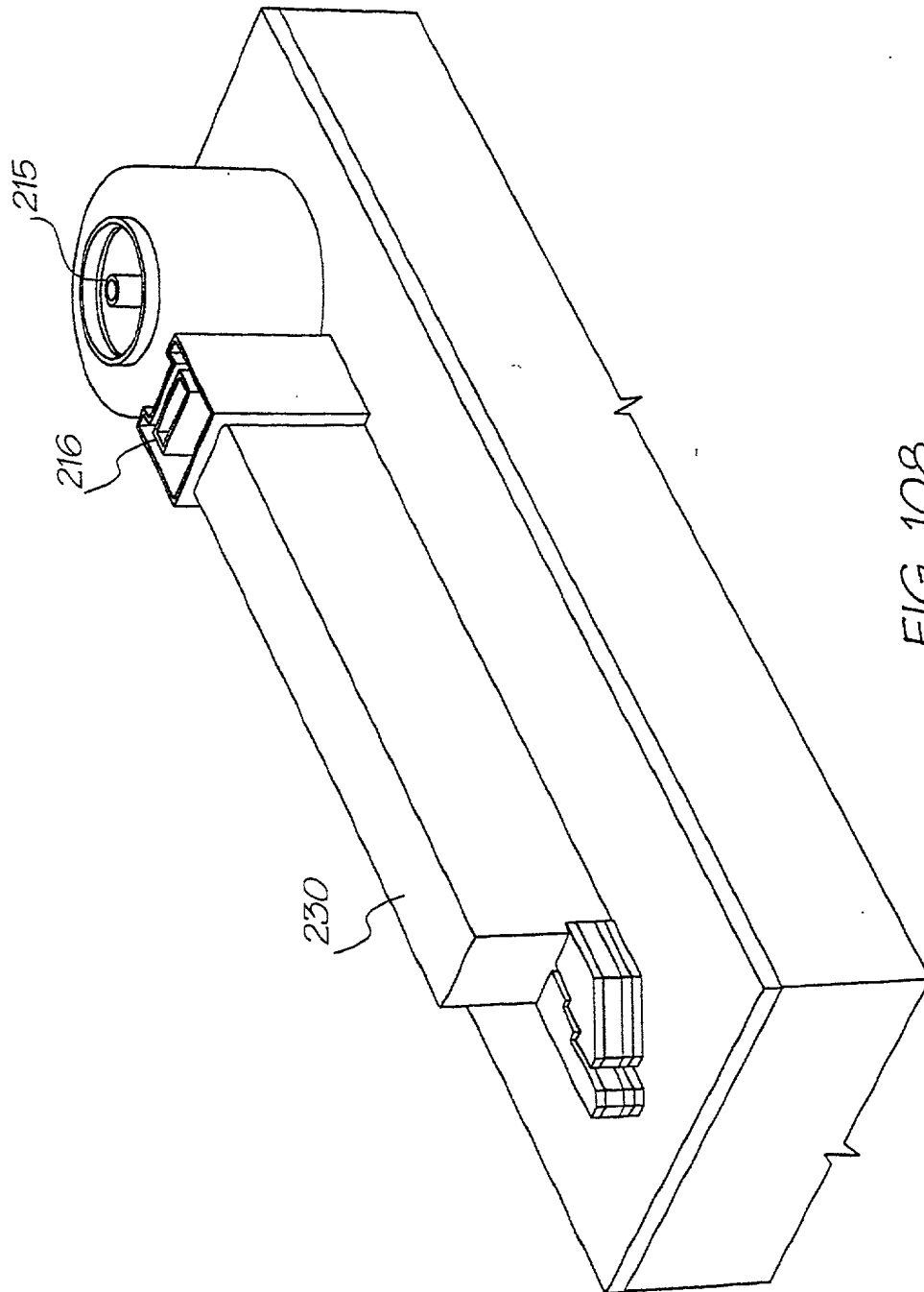


FIG. 108

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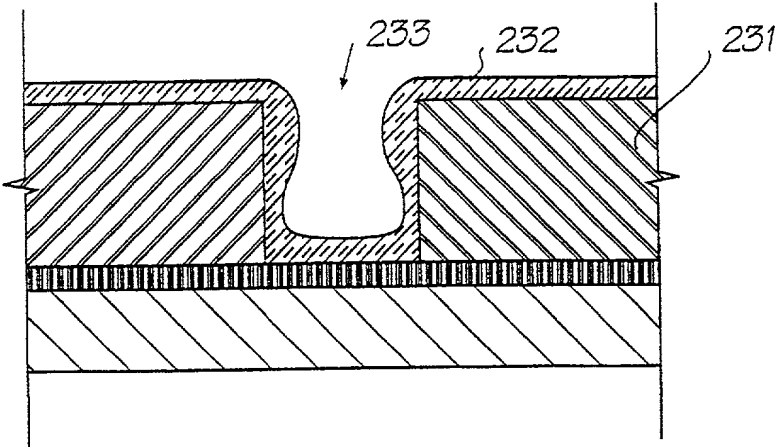


FIG. 109

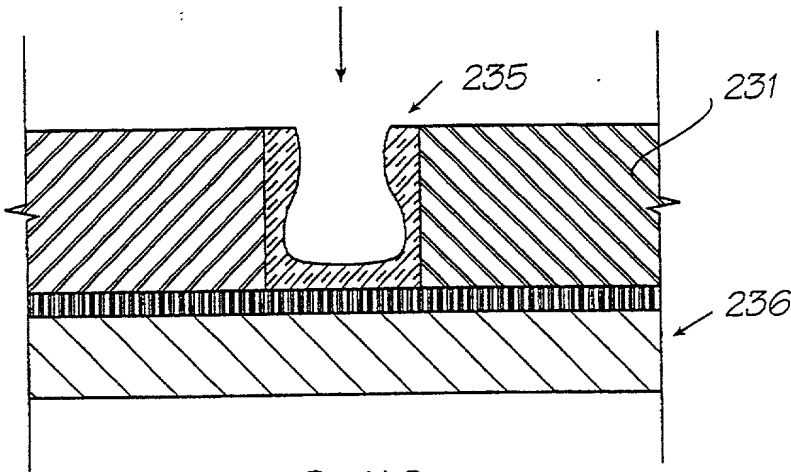


FIG. 110

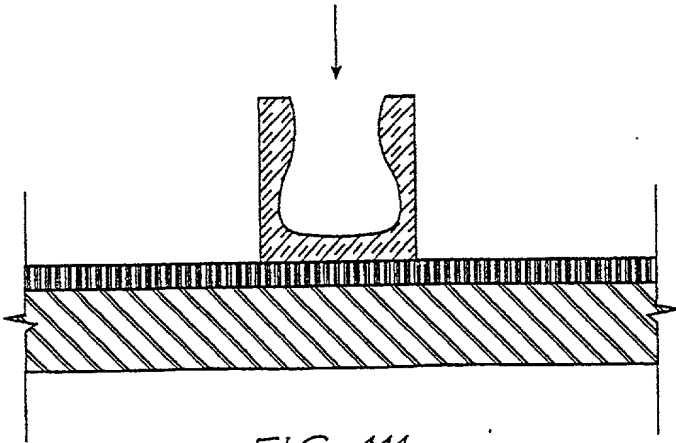


FIG. 111